

## APPENDIX J – DRAFT REPORT ON WILD AND SCENIC RIVERS ELIGIBILITY & SUITABILITY DETERMINATIONS

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*Upper Big Hole River, Deer Lodge County, Montana*

### **BUTTE RESOURCE MANAGEMENT PLAN BUTTE FIELD OFFICE, MONTANA**

February 2006



US Department of Interior, Bureau of Land Management  
106 North Parkmont  
Butte, Montana 59701



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## LIST OF ACRONYMS

Acronym or Abbreviation	Full Phrase
BLM	United States Department of the Interior, Bureau of Land Management
EA	environmental assessment
EIS	environmental impact statement
FERC	Federal Energy Regulatory Commission
FLPMA	Federal Land Policy and Management Act
GIS	Geographic Information System
IM	Instruction Memorandum
MFWP	Montana Fish, Wildlife, and Parks
MDEQ	Montana Department of Environmental Quality
MOU	Memorandum of Understanding
NPS	United States Department of the Interior, National Park Service
NWSRS	National Wild and Scenic Rivers System
Planning Area	Butte Resource Management Plan planning area
PPL	Pennsylvania Power and Light Corporation
RMA	Recreation Management Area
RMP	resource management plan
TMDL	total maximum daily load
USC	United States Code
USFS	United States Department of Agriculture, Forest Service
VRM	Visual Resource Management
WSA	Wilderness Study Area
WSR	Wild and Scenic River
WSR Act	Wild and Scenic Rivers Act

# DRAFT WILD AND SCENIC RIVER ELIGIBILITY & SUITABILITY DETERMINATIONS

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## EXECUTIVE SUMMARY

As part of the land use planning process for the Butte Resource Management Plan (RMP), a US Department of the Interior, Bureau of Land Management (BLM) interdisciplinary team analyzed all river and stream segments in the Butte Field Office administrative area (Planning Area) that might be eligible for inclusion in the National Wild and Scenic Rivers System (NWSRS). This included screening all Planning Area rivers to identify those with BLM surface ownership. These initial screening and identification efforts resulted in a list of 164 rivers or river segments for further consideration in the inventory process.

Additional review focused on whether these 164 segments meet free-flowing criteria and contain any outstandingly remarkable values, as defined in the Wild and Scenic Rivers Act of 1968 (Public Law 90-542 [as amended], 16 United States Code 1271-1287) (WSR Act). Of the 164 river segments, four segments totaling 12 miles meet the eligibility criteria. These include segments on the Big Hole River, Missouri River, Moose Creek, and Muskrat Creek. Tentative classifications are assigned to each eligible segment as follows: Big Hole River – Recreational; Missouri River – Scenic; Moose Creek – Scenic; and Muskrat Creek – Scenic.

## INTRODUCTION

Section 5(d)(1) of the WSR Act directs Federal agencies to consider potential wild and scenic rivers in their land and water planning processes (*“In all planning for the use and development of water and related land resources, consideration shall be given by all Federal agencies involved to potential national wild, scenic and recreational river areas”*). To fulfill this requirement, whenever the BLM undertakes a land use planning effort (e.g., an RMP), it analyzes river and stream segments that might be eligible for inclusion in the NWSRS. The BLM, Butte Field Office, is revising its older land use plans, namely the Headwaters RMP (BLM 1984) and the Dillon Management Framework Plan (BLM 1979). The revised RMP will provide a single, comprehensive land use plan that will guide management of public land administered by the Butte Field Office.

This report is a record of the wild and scenic river study that is being conducted concurrently with the Butte RMP revision. This report documents BLM’s examination of Butte Field Office river segments as they relate to eligibility, suitability, and classification criteria in the WSR Act.

The BLM Butte Field Office Planning Area is in mid-western Montana (**Figure 1**). Within the Planning Area, BLM administers about 311,000 acres of public surface land and 656,000 acres of Federal mineral estate in Lewis and Clark, Jefferson, Broadwater, Deer Lodge, Silver Bow, Gallatin, and Park Counties.

## WHAT IS A WILD AND SCENIC RIVER?

Congress enacted the WSR Act to provide a national policy for preserving and protecting selected rivers and river segments in their free-flowing condition for the benefit and enjoyment of present and future generations. The WSR Act provides criteria that must be considered during the analysis. The eligibility process is depicted in **Figure 2**. No rivers in the Planning Area are currently managed under the WSR Act.

## STEPS IN THE WILD AND SCENIC RIVERS STUDY PROCESS

The wild and scenic river study process is comprised of two main components: the inventory phase and the study phase. The inventory phase includes identifying eligible river and stream segments, assigning tentative classification (Wild, Scenic, or Recreational), and describing protective management for the eligible segments. The study phase includes determining the suitability of eligible segments for inclusion in the NWSRS and describing interim management measures. The inventory is conducted during the data-gathering stage of RMP revision, and the study phase is done during formulation of the Draft RMP and Proposed RMP.

### ***Inventory Phase***

The purpose of the inventory is to identify eligible rivers and river segments in the Planning Area and to assign them a tentative classification. The WSR Act directs agencies to consider a wide variety of internal and external sources to identify potentially eligible rivers. The goal is to avoid overlooking river segments that could be included in the NWSRS. In cases where a particular river segment is predominantly non-Federal in ownership and contains interspersed BLM-administered lands, BLM shall evaluate only its segment as to eligibility and defer to the state or private landowners' discretion as to their determination of eligibility (BLM 2003).

#### **Identification of Eligible River Segments**

The BLM applies standard criteria to identified river segments to determine eligibility. To be eligible, a river segment must be free-flowing and must possess at least one river-related value considered outstandingly remarkable. The specific criteria for free-flowing and outstandingly remarkable values are listed in Appendix A.

There are several sources generally used to identify potentially eligible rivers, as follows:

- *The Outstanding Rivers List* (Huntington and Echeverria 1991). This was compiled by the American Rivers Organization as a comprehensive nationwide compilation of rivers that possess some outstanding ecological, recreational, natural, cultural, or scenic values. Rivers protected by legislation and rivers currently unprotected are included. The list includes more than 15,000 outstanding United States river segments, roughly 300,000 river miles. Some of this information is redundant with the Nationwide Rivers Inventory, which is included within the Outstanding Rivers List, but much of it is additional information.
- *The Nationwide Rivers Inventory* (NPS 2004). This inventory was initially completed in 1982 and is maintained and periodically updated by the National Park Service. Additions have been made as a result of BLM and U.S. Forest Service (USFS) inventories, done as part of their land use planning processes. It is a listing of more than 3,400 free-flowing river segments in the United States that are believed to possess one or more "outstandingly remarkable" natural or cultural values judged to be of more than local or regional significance.
- *Montana Fish, Wildlife, and Parks' Class One Streams List* (MWFP 2004a). This lists Class I streams, which are blue ribbon fisheries, throughout Montana.
- *The Montana Statewide Comprehensive Outdoor Recreation Plan* (MWFP 2004b). The 2003-2007 Statewide Comprehensive Outdoor Recreation Plan outlines Montana's five-year plan for outdoor recreation management, conservation, and development. It provides the strategic framework for recreation facility managers to use as a guideline in planning and prioritizing resources for staff and funding and includes a timeline for implementation.
- The USFS, Helena National Forest Wild and Scenic Rivers Eligibility Study (Helena National Forest 1989). The Helena National Forest conducted eligibility studies on some reaches that are considered in this report. Prior to 1989, segments of four streams located on Helena National Forest-administered lands were determined eligible: portions of Copper Creek, Little Blackfoot River, Beaver Creek, and the Missouri River from Hauser Dam to Cochran Gulch (Helena National Forest 2004). Helena National Forest will conduct suitability studies on these eligible reaches in the future. These include the three-mile free-flowing stretch of the Missouri River located below Hauser Dam and above Holter Lake (in the Helena National Forest), which is located in the very northern portion of the Butte Field Office; this was tentatively classified as scenic.
- *River segments identified in public scoping during the RMP revision process.* No river segments were identified by the public during the scoping process.

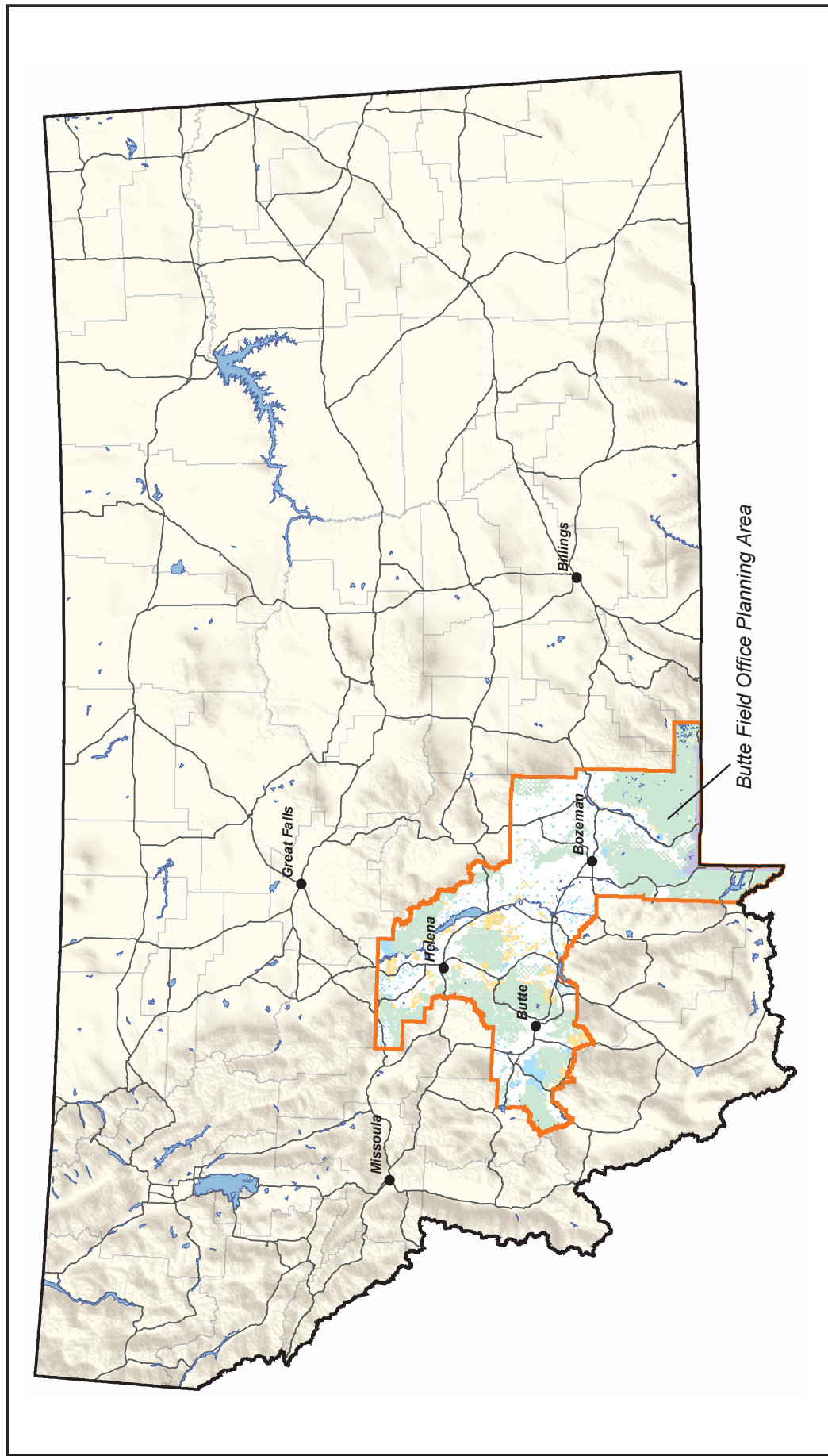
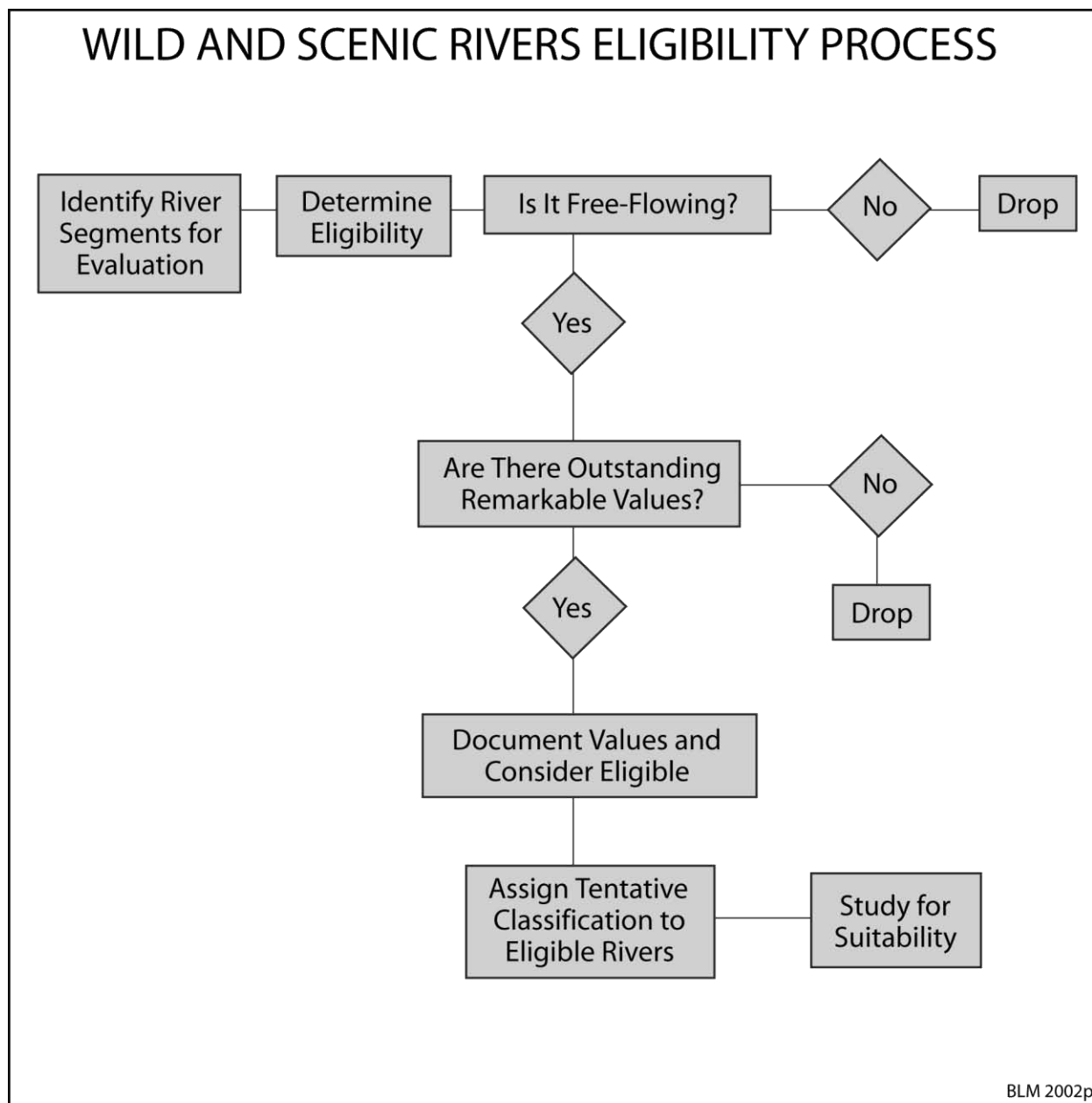


FIGURE 1  
Butte RMP Planning Area, Montana  
BLM, Butte Field Office  
Butte RMP and EIS



Figure 2 Wild and Scenic Rivers Eligibility Process Flow Chart



The BLM inventories and evaluates rivers when it develops a RMP. The inventory is conducted during the data gathering stage of RMP development, and the study phase is done during the formulation of the Draft and Proposed RMP.

*Wild and Scenic Rivers Eligibility Process Flow Chart*



Listing on any of these source lists does not represent an official determination of eligibility and, conversely, absence from these source lists does not indicate a river's noneligibility.

#### *Tentative Classification*

Once a river segment is considered eligible, it is assigned a tentative classification. There are three classes for rivers designated under the WSR Act: Wild, Scenic, and Recreational. The criteria for classification are defined in Section 2(b) of the WSR Act and are described in Appendix B. Classes are based on the type and degree of human development and access associated with the river and adjacent lands at the time of the inventory.

The classification does not reflect the types of values present along a river segment. The classification assigned during the inventory phase is tentative. Final classification is a congressional legislative determination, along with designation of a river segment as part of the NWSRS.

#### *Interim Protective Management of Eligible Rivers*

Rivers or river segments determined eligible must be managed to protect the free flow, outstandingly remarkable values, and tentative classification until a suitability study of the segment has been completed. Management guidelines to protect eligible candidate rivers are detailed in Appendix C, *Interim Protection for Candidate Wild and Scenic Rivers*.

During the interim phase, any proposed action that could adversely affect or be inconsistent with wild and scenic river values would require management decisions based on a National Environmental Policy Act analysis and Section 202 of the Federal Land Policy and Management Act of 1976 (FLPMA), as follows:

- Any proposed action that may be inconsistent with or adversely affect identified wild and scenic river values would require a site-specific environmental assessment (EA), opportunity for public involvement, and at least a 30-day public comment period. The decision notice record for the EA (involving these types of actions) would be conducted and signed at the field office level. However, before the decision notice record is signed, a copy of supporting documentation would be forwarded to the applicable state director for review and concurrence.
- If the preparers of the EA determine that the proposal could have a major action significantly affecting the environment, a separate environmental impact statement (EIS) apart from the BLM RMP/EIS would be required.
- Should the preparers of the EA or EIS determine that the action as proposed, or with appropriate mitigation or an acceptable alternative, would not have irreversible or irretrievable adverse impacts and would maintain or enhance identified wild and scenic river values, such action may be approved.
- If the preparers of the EA or EIS determine that the action as proposed would have irreversible or irretrievable adverse impacts to identified wild and scenic river values, the decision on the action would be held temporarily in suspension until wild and scenic river evaluations are address and resolved through the BLM planning process.

#### *Suitability Study Phase*

The purpose of the study phase is to determine whether eligible river segments are suitable or unsuitable for inclusion in the NWSRS, per WSR Act criteria. The suitability evaluation does not result in actual designation but only a suitability determination for designation. Only Congress can designate a wild and scenic river. In some instances, the Secretary of the Interior may designate a wild and scenic river when the governor of a state, under certain conditions, petitions for a river to be designated. Congress would ultimately choose the legislative language if any suitable segments are presented to them. Water-protection strategies and measures to meet the purposes of the WSR Act would be the responsibility of Congress in any legislation proposed.

Rivers found unsuitable would be dropped from further consideration and would be managed according to the objectives outlined in the RMP.

The preliminary suitability evaluation is completed as the Draft RMP is prepared. Impacts that would occur from designation and non-designation of the eligible river segments then would be analyzed in the EIS associated with the RMP. Public review and comment on preliminary suitability determinations included in the Draft RMP/EIS would be considered before the BLM makes final suitability determinations in the proposed RMP.

#### *Suitability Criteria*

The following 13 factors, identified in BLM Manual Section 8351 (BLM 1992), are applied to each eligible river segment when completing the suitability study:

1. Characteristics that do or do not make the river a worthy addition to the NWSRS;
2. The status of land ownership, minerals, use in the area, including the amount of private land involved, and associated or incompatible uses;
3. Reasonably foreseeable potential uses of the land and related waters that would be enhanced, foreclosed, or curtailed if the area were included in the NWSRS and values that would be foreclosed or diminished if the area were not protected as part of the NWSRS;
4. Federal or state agency that will administer the river should it be added to the NWSRS;
5. Federal, state, tribal, local, public, or others with an interest in designation or non-designation of the river, including the extent to which the agency proposes that administration of the river, including the costs thereof, be shared by state, local, or other agencies and individuals;
6. Estimated cost to the United States of acquiring necessary lands, interests in lands, and administering the area should it be added to the NWSRS;
7. A determination of the degree to which the state or its political subdivision(s) might participate in the preservation and administration of the river should it be proposed for inclusion in the NWSRS;
8. The Federal agency's ability or other mechanisms to protect and manage the identified river-related values other than designation into the NWSRS;
9. An evaluation of the adequacy of local zoning and other land use controls in protecting the river's outstandingly remarkable values by preventing incompatible development;
10. Support or opposition to designation;
11. Historical or existing rights that could be adversely affected with designation; and
12. The consistency of designation with other agency plans, programs, or policies in meeting regional objectives; and
13. The contribution to a river system, watershed, or basin integrity.

#### *Interim Management of Suitable Segments*

The WSR Act requires that interim management measures be developed to protect the free-flowing nature, outstandingly remarkable values, and recommended classification of suitable segments until Congressional action regarding designation is taken. Guidelines for interim management are included in Appendix C.

### **INVENTORY PHASE FOR THE BUTTE RMP REVISION**

Various resource personnel from the BLM's Butte Field Office were consulted to conduct the wild and scenic rivers inventory in support of the RMP revision currently underway. The interdisciplinary team was composed of BLM staff specialists in lands and realty, wildlife/fisheries/riparian biology, range/riparian resources, recreation, visual resources, cultural resources, minerals, and geology.

## IDENTIFICATION OF ELIGIBLE RIVER SEGMENTS

To avoid overlooking potentially eligible river segments, a combination of sources were used. The primary source was the BLM's geographic information system (GIS) rivers and streams layer (BLM 2004b), which is a comprehensive list of potentially free-flowing waterbodies within the Planning Area. The GIS was cross-referenced with additional sources, including the Outstanding Rivers List (Huntington and Echeverria 1991), Nationwide Rivers Inventory (NPS 2004), Montana Fish, Wildlife, and Parks' (MFWP) Class One Streams List (MFWP 2004a), and Montana Statewide Comprehensive Outdoor Recreation Plan (MFWP 2004b). The Nationwide Rivers Inventory includes two river segments on BLM-administered lands in the Planning Area: 1.06 miles of the Yellowstone River in Park County (Township 7 South, Range 7 East, Sections 19 and 20, Montana Principal Meridian) and the 3.1-mile segment of the Missouri River, between Hauser Dam and Upper Holter Lake (NPS 2004).

From these sources, the BLM interdisciplinary team compiled an inventory of all rivers on BLM-administered surface lands in the Planning Area. BLM limited the inventory to the lands it administers, per recent changes to BLM Manual 8351, *Wild and Scenic Rivers—Policy and Program Direction for Identification, Evaluation, and Management*. The manual revision states that “In cases where a particular river segment is predominantly non-Federal in ownership and contains interspersed BLM-administered lands, BLM shall evaluate only its segment as to eligibility and defer to the State or to the private landowners' discretion as to their determination of eligibility” (BLM 2003). As part of the initial screening process, all Planning Area rivers were divided into multiple segments based on BLM surface ownership. Initial screening resulted in a list of 164 river segments on BLM-administered lands for further consideration. These river segments are located along 55 rivers. These rivers or river segments include those listed in Appendix D which are depicted on **Figure 3**.

Additional review focused on whether any of these 164 segments met free-flowing criteria and contained any outstandingly remarkable values, as defined in the WSR Act. Members of the BLM interdisciplinary team conducted this review for each of their areas of expertise, using their knowledge of the area and consulting available inventory information. This information was considered against the outstandingly remarkable values criteria provided in Appendix A. Based on their findings, team members proposed four river segments, Big Hole River, Missouri River, Muskrat Creek, and Moose Creek, as eligible for further study because they contain outstandingly remarkable values and are free flowing (**Figure 4** and **Table 1**). Following Table 1 is a description of outstandingly remarkable values for each candidate river segment.

Indian Creek Segment 5 was initially found to be eligible. Further evaluation during the suitability phase determined the segment not to be free flowing. The extensive historic and current mining activities have resulted in a channel which does not meet the “natural condition” requirements of free flowing. Numerous placer piles along the segment have resulted in severe modification of the natural channel.

The BLM interdisciplinary team determined that the Yellowstone River segment included in *The Nationwide Rivers Inventory* does not contain any outstandingly remarkable values. The Missouri River segment between Hauser Dam and Upper Holter Lake (the same segment described above and in Table 1), which also is included in *The Nationwide Rivers Inventory*, does have outstandingly remarkable values, as shown in Table 1.

As part of their RMP revision, the BLM Dillon Field Office evaluated one river segment located in the Butte Field Office, the Lower Madison from Black's Ford to Gray Cliff. The Dillon RMP final eligibility report found this segment eligible with a temporary classification of Recreational. The segment was not found suitable in the Dillon RMP.

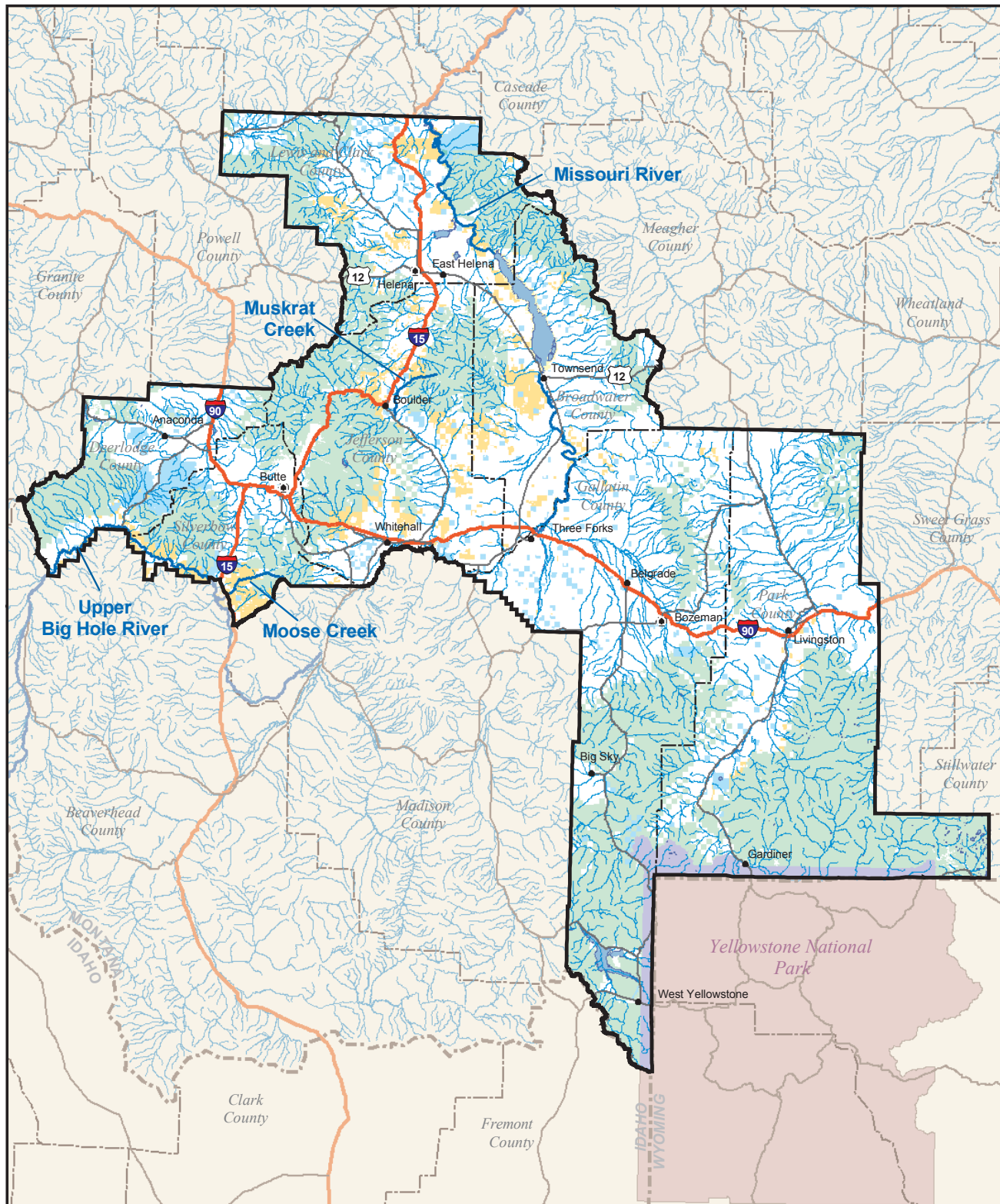
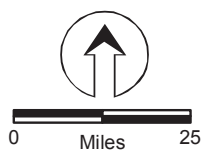
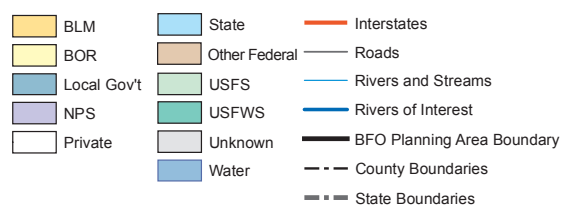


FIGURE 3

Planning Area Rivers  
with Eligible Segments  
BLM, Butte Field Office  
Butte RMP and EIS



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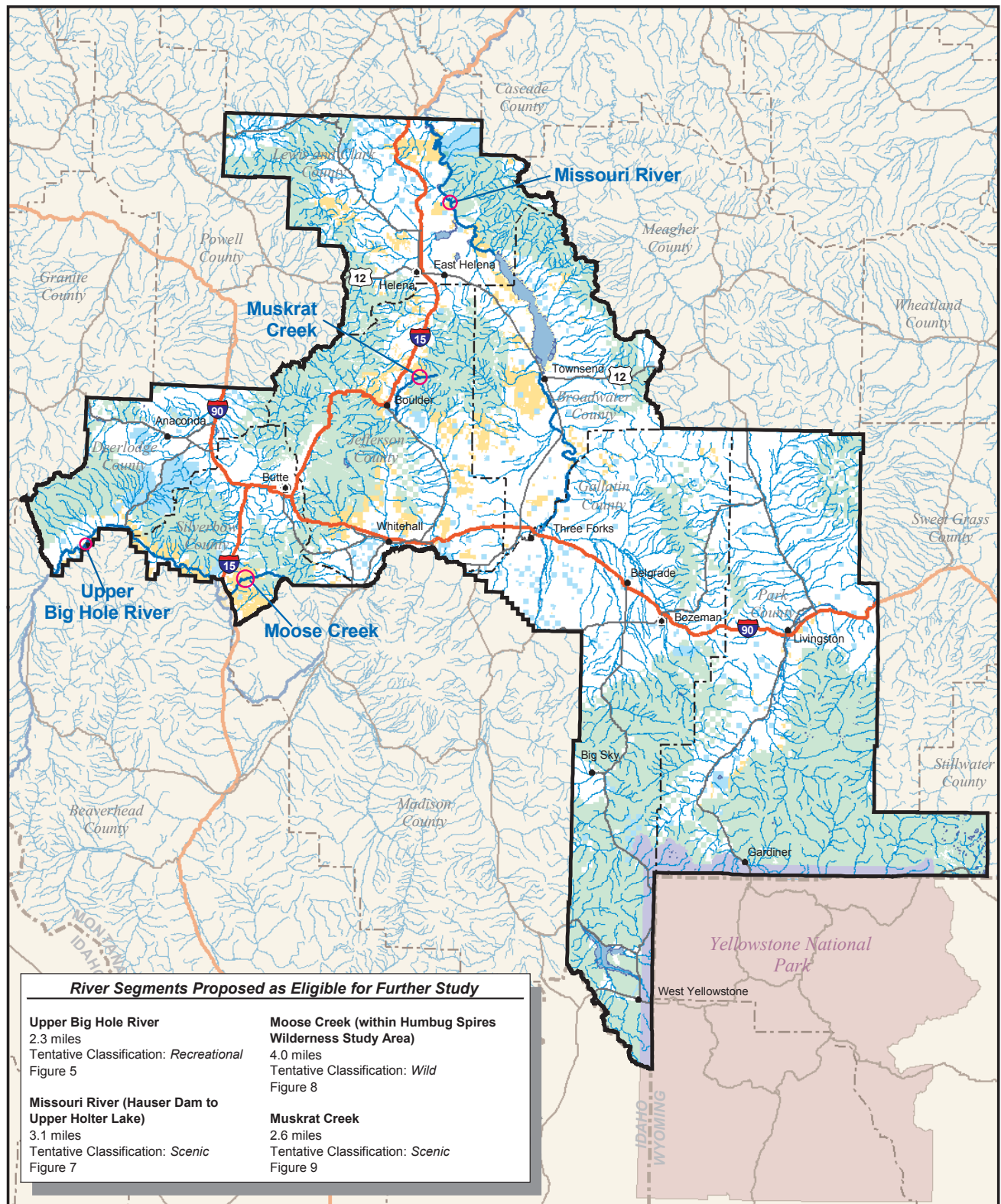
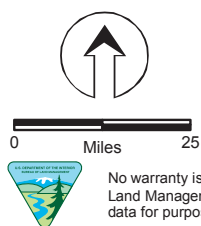
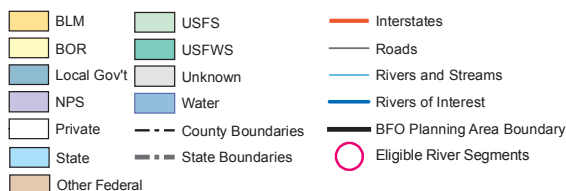


FIGURE 4

Planning Area River Segments  
Proposed as Eligible for  
Further Study  
BLM, Butte Field Office  
Butte RMP and EIS



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**Table 1**  
**Eligible River Segments and Tentative Classification**

<b>Segment</b>	<b>General Location</b>	<b>Legal Description<sup>1</sup></b>	<b>Length</b>	<b>Outstandingly Remarkable Values</b>	<b>Free-Flowing?</b>	<b>Tentative Classification</b>	<b>Proposed Boundary</b>
1. Upper Big Hole River	About 11 miles west of Dickie Bridge Recreation Area and 16 miles northeast of town of Wisdom	T1N R13W Sec 8, 17, 18, 19, Deerlodge County	2.3 miles ( <b>Figure 5</b> )	Recreational Fish	Yes	Recreational	0.25-mile on each side
2. Missouri River	Hauser Dam to Upper Holter Lake	T12N R3W Sec 13 and T12N R2W Sec 19, 29, 30 Lewis and Clark County	3.1 miles ( <b>Figure 6</b> )	Recreational Wildlife Scenic	Yes	Scenic	0.25-mile on each side
3. Moose Creek	Entire creek length within Humbug Spires Wilderness Study Area	T1S R8W Sec 9, 10 Silver Bow County	4.0 miles ( <b>Figure 7</b> )	Scenic Recreational	Yes	Scenic	0.25-mile on each side
4. Muskrat Creek	About 5 miles northeast of town of Boulder	T7N R3W Sec 31, 32, 33 Jefferson County	2.6 miles ( <b>Figure 8</b> )	Fish	Yes	Scenic	0.25-mile on each side

<sup>1</sup>T=Township, N=North, W=West, R=Range, Sec=Section, Montana Principal Meridian

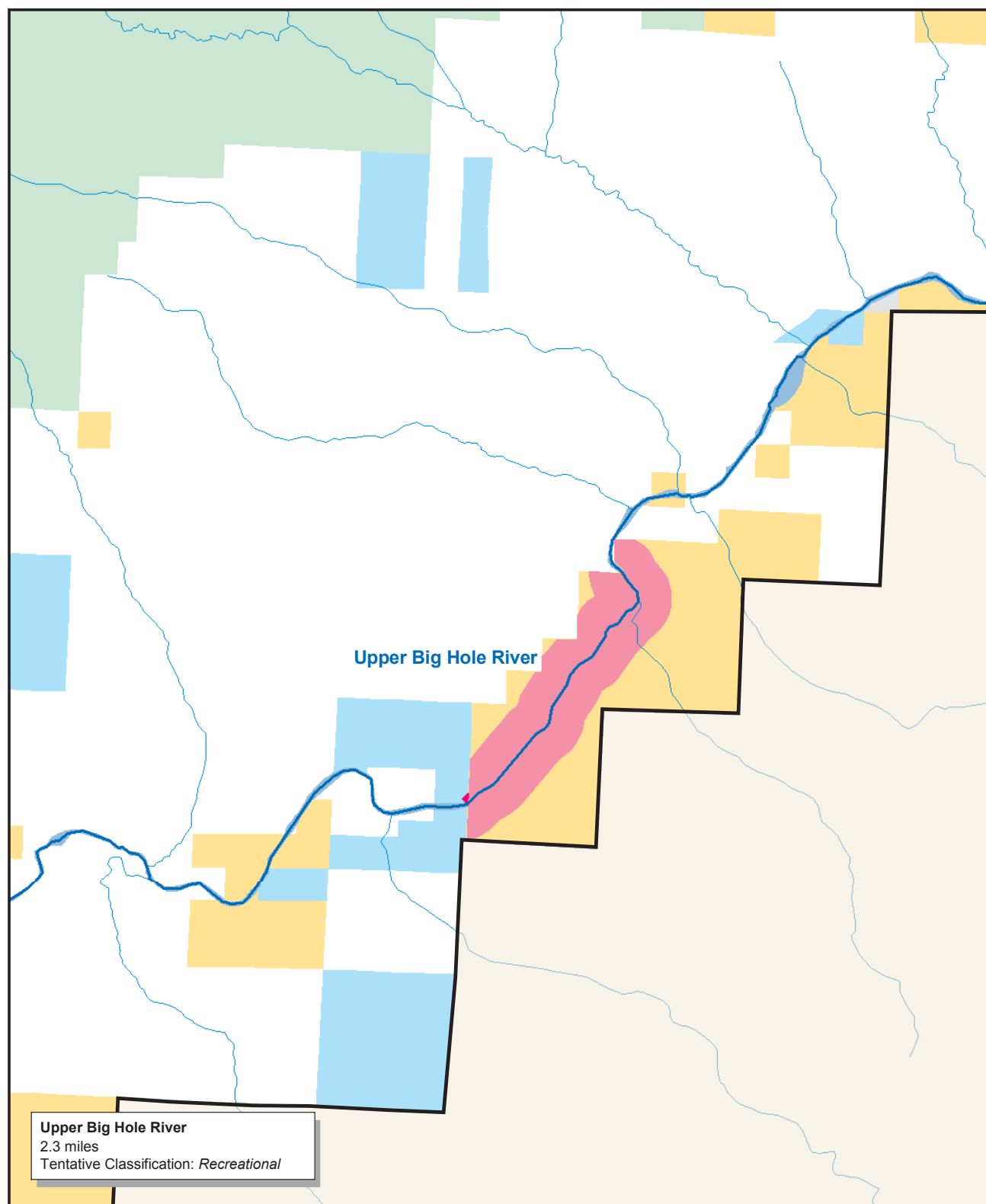
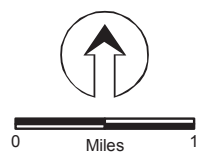


FIGURE 5

Upper Big Hole River  
BLM, Butte Field Office  
Butte RMP and EIS



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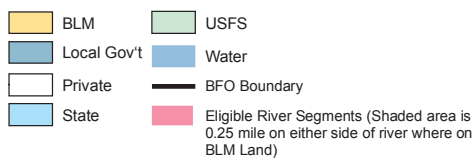
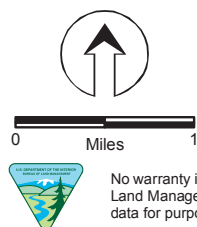
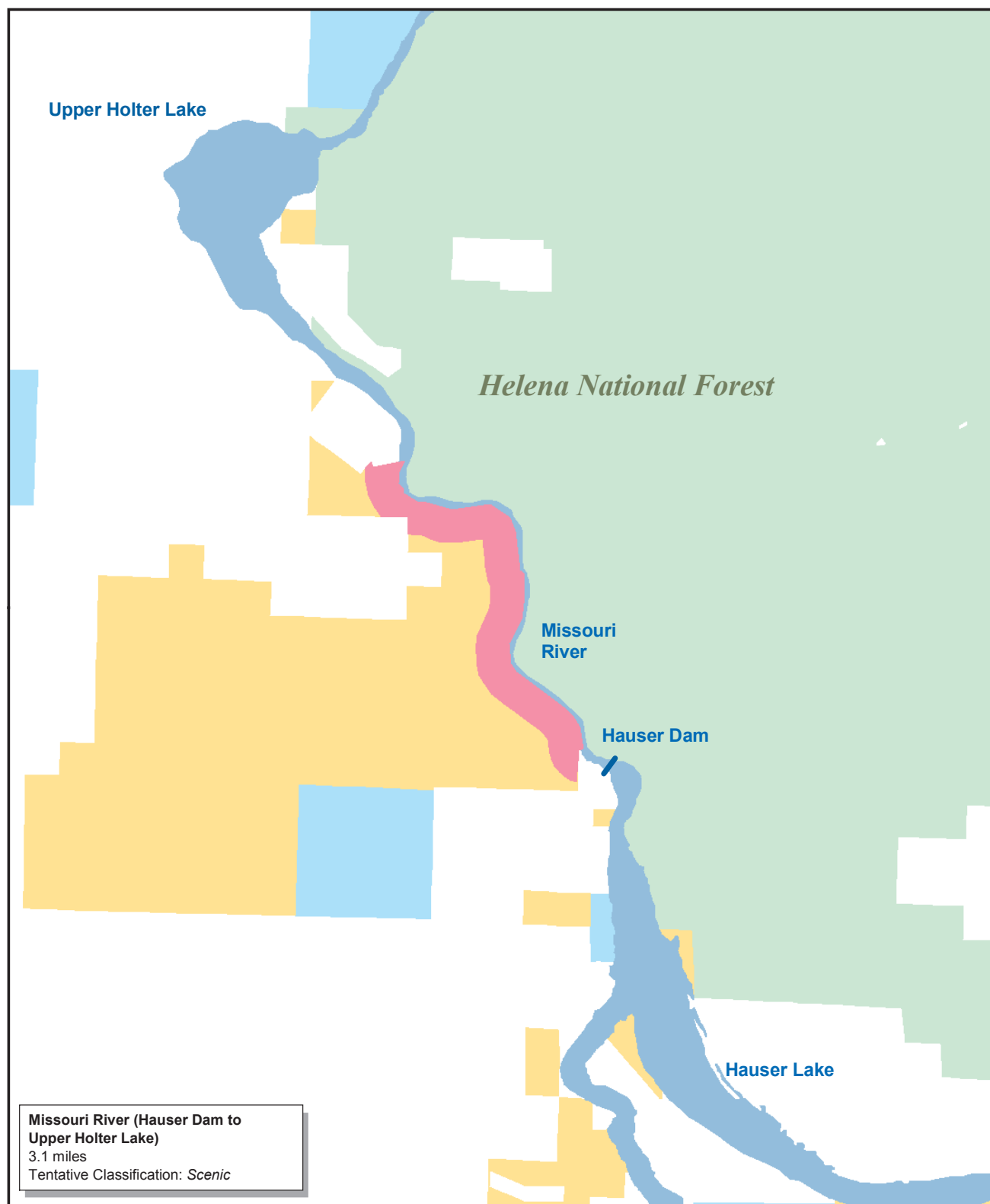


FIGURE 6

Missouri River  
BLM, Butte Field Office  
Butte RMP and EIS

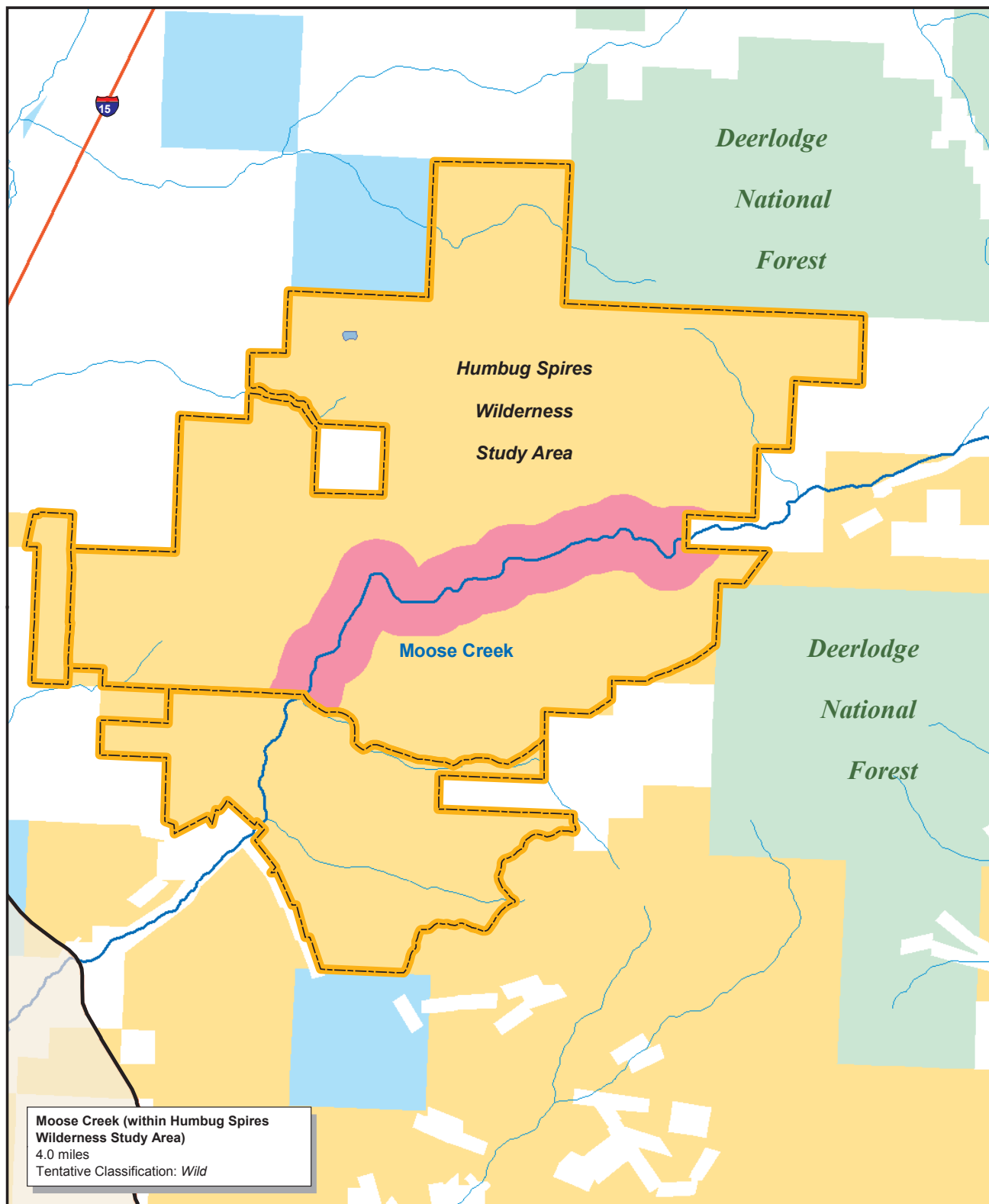


FIGURE 7

Moose Creek  
BLM, Butte Field Office  
Butte RMP and EIS



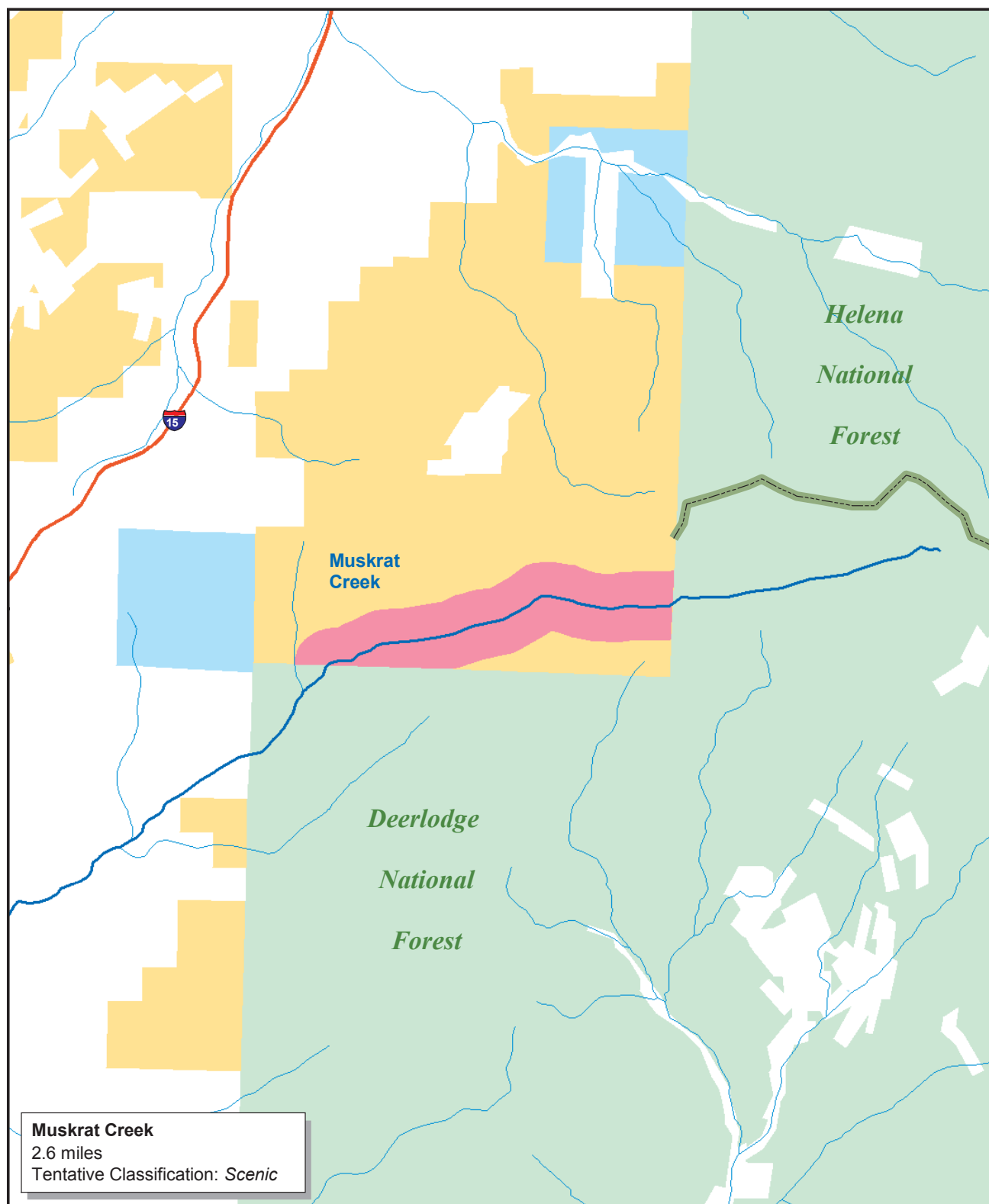
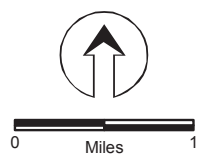


FIGURE 8

Muskrat Creek  
BLM, Butte Field Office  
Butte RMP and EIS



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## IMPAIRED WATER BODIES

Section 303(d) of the Clean Water Act requires that water bodies violating state or tribal water quality standards be identified as impaired and placed on a 303(d) list. It is the state's responsibility to develop its own 303(d) list and to establish a total maximum daily load for the parameter(s) causing impairment. Moose Creek and Muskrat Creek are identified as impaired water bodies on the Montana Department of Environmental Quality's (MDEQ) 2004 Draft 303(d) list (MDEQ 2005).

An impaired stream cannot be classified as Wild but could be classified as Scenic or Recreational. The classification criteria specify that rivers will not be precluded from Scenic or Recreational classification because of poor water quality at the time of their study, provided that a water quality improvement plan exists or is being developed in compliance with applicable Federal and State laws. The MDEQ has established a schedule to prepare water quality improvement plans on all impaired water bodies by 2007. As such, Moose Creek and Muskrat Creek are not precluded from tentative Scenic or Recreational classifications. Further evaluations, as described below, show a discrepancy between the MDEQ listing of Muskrat Creek and current conditions. Further investigation is necessary, and this segment may need to be reclassified. If the eligible segment is determined not to be water quality impaired, this segment would be eligible for Wild classification.

## TENTATIVE CLASSIFICATION

Tentative classification of each of the four segments is listed in Table 1.

### ***Segment 1: Upper Big Hole River***

Eligible segment length on BLM-administered lands: 2.3 miles (Figure 5)

Tentative Classification: Recreational

The outstandingly remarkable values for this segment are described below.

#### *Recreational*

This river reach is rated as a Class 1, Blue Ribbon Fisheries. MFWP assessed this sport fisheries value based on a combination of fish abundance, fishing pressure, aesthetics, and access. This is the highest rating given for state rivers. This reach attracts numerous national and international visitors, and out-of-state visitors represent about 30 percent of the annual use each year (MFWP 2004a). The area is famous for its fly-fishing, especially during the salmon/stone fly hatches. Other quality recreational uses, although not outstandingly remarkable, include river floating (May through July), hiking, camping, wildlife observation, and hunting.

#### *Fish*

Fish species include rainbow trout (*Oncorhynchus mykiss*), brown trout (*Salmo trutta*), and brook trout (*Salvelinus fontinalis*), and the State-listed and BLM sensitive species, Montana arctic grayling (*Thymallus arcticus montanus*). This is the only free-flowing river in the lower 48 states that supports the Montana arctic grayling.

### ***Segment 2: Missouri River (Hauser Dam to Upper Holter Lake)***

Eligible segment length on BLM-administered lands: 3.1 miles (Figure 6)

Tentative Classification: Scenic

The outstandingly remarkable values for this segment are described below.

#### *Recreational*

This river reach is rated as a Class 1—Blue Ribbon Fisheries, which is the highest rating given for state rivers. MFWP assessed this sport fisheries value, based on a combination of fish abundance, fishing pressure, aesthetics, and access. This reach attracts numerous national and international anglers for brown and rainbow trout and Kokanee salmon (*Oncorhynchus nerka kennerlyi*).

This reach is also part of the Lewis and Clark National Historic Trail. The Lewis and Clark Expedition passed through this reach on July 20, 1805, on their westward trek to the Pacific Ocean. On that day, Meriwether Lewis was traveling along the river, while William Clark was exploring the uplands and hunting game. This reach is expected to receive higher visitation from out-of-state residents during the bicentennial of the Lewis and Clark Expedition in 2005 and 2006. The corridor is highly natural, and for the most part still appears as seen by the Expedition.

Other high-quality recreational opportunities associated with this river segment and the adjoining BLM lands include river floating, primitive camping, hiking, wildlife observation, and big-game hunting.

#### Wildlife

There is significant habitat for regionally important populations of Federally-listed threatened bald eagle (*Haliaeetus leucocephalus*), bighorn sheep (*Ovis canadensis*), golden eagle (*Aquila chrysaetos*), peregrine falcon (*Falco peregrinus anatum*), and osprey (*Pandion haliaetus*).

#### Scenic

Transitions in geology and topography provide outstanding vistas with stark contrasts. The upstream portion of the segment is bounded by steep colorful canyon walls that transition into rolling hill topography as one proceeds downstream. The alternating distant vistas contrasted with steep canyon walls provide a unique visual experience. The area is rated A for scenic quality, as defined in the BLM *Visual Resource Inventory Handbook*, H-8410-1 (BLM 1986).

Shoreline development criteria for Wild designation requires that development be primitive, with little evidence of human activity. The presence of a few inconspicuous structures, particularly those of historic or cultural value, is acceptable. However, due to the development visible from the river along this segment (e.g. the Beaver Creek parking area and a pit toilet) the Missouri River is not suitable for Wild designation.

#### **Segment 3: Moose Creek**

Eligible segment length on BLM-administered lands: 4.0 miles (Figure 7)

Tentative Classification: Scenic

The outstandingly remarkable values for this segment are described below.

#### Scenic

The scenic quality of this area is rated A. The combination of contrasting land features with pronounced rock spires, irregular topography, and the variety of color patterns along this creek corridor provide outstanding visual values that are managed as a Visual Resource Management (VRM) Class I area. The area immediately adjacent to the creek varies from wooded to meadow with a meandering creek and a well-developed riparian area. Upstream of where the trail diverges from the creek, it becomes steeper with water cascading through boulders. The creek returns to a meadow-type creek near the upstream end of the segment where it enters private land.

#### Recreational

The outstanding recreation opportunities associated with Moose Creek and the adjoining lands in the Humbug Spires Wilderness Study Area (WSA) attract visitors both nationally and internationally. The area was one of the first BLM Primitive Areas to be established and is protected as a WSA. This area was studied and recommended for wilderness in 1981.

The most popular forms of recreation include rock climbing, sightseeing, hiking, backpacking, hunting, wildlife observation, and primitive camping. Of these, the most unique and outstanding opportunity is for rock climbing. The granite spires provide some of the highest quality hard-rock climbing in Montana. There are about 10 spires between 300 and 600 feet high, and an additional 50 others that range between 50 and 300 feet. The spires are not located within the Moose Creek study corridor, but the hiking trail through the corridor provides access to the spires.

Hiking opportunities were also assessed as excellent in the Humbug Spires WSA, given the diversity in landform types and vegetation. Hiking challenges range from gentle maintained trails to adventurous game trails with numerous elevation changes. Hikers are afforded high-quality scenic views, wildlife observations, colorful wildflowers, remote campsites, and trout fishing along this perennial stream. The scenic and recreational values of the study corridor are not duplicated in any other proposed or existing wilderness area. The experiences to be found when visiting the Humbug Spires are unique and cannot be compared to those found anywhere else in the region (BLM undated).

The eligible segment's tentative classification would have been Wild if it were not listed as an impaired water body on MDEQ's Draft 2004 and Final 2002 303(d) list (MDEQ 2005), as discussed above in the section, "*Inventory Phase for the Butte RMP Revision, Impaired Water Bodies.*" The portion of Moose Creek south of the Humbug Spires WSA is not included in the eligible segment because it does not contain any outstandingly remarkable values.

#### ***Segment 4: Muskrat Creek***

Eligible segment length on BLM-administered lands: 2.6 miles (Figure 8)

Tentative Classification: Scenic

The outstandingly remarkable values for this segment are described below.

#### **Fish**

Muskrat Creek, a tributary to the Boulder River, provides significant habitat for westslope cutthroat trout (*Oncorhynchus clarki lewisi*). Genetically pure westslope cutthroat trout are estimated to exist in only two to four percent of their historic stream distribution (Montana Chapter of the American Fisheries Society 2004). Muskrat Creek contains genetically pure westslope cutthroat trout, and the headwaters of the stream are in a roadless area of BLM- and Forest Service-administered lands that is essentially primitive in nature.

MFWP, the BLM, and the USFS are collaborating to conserve westslope cutthroat trout in Muskrat Creek. A wooden barrier was constructed near the Forest Service boundary at river mile 7.6 in 1997. Since 1996, brook trout have been annually removed (using electrofishing) from Muskrat Creek upstream of the barrier to a natural barrier at river mile 9. In 1997, native westslope cutthroat trout also were relocated above the natural barrier (formerly a fishless section of stream). The westslope cutthroat trout relocated above the natural barrier survived and reproduced in the upper basin, and, by 2002, westslope cutthroat trout had expanded upstream to the headwaters (approximately river mile 13.5), as well as downstream throughout the stream.

Brook trout have been successfully removed between the manmade barrier and natural barrier. In the summer of 2003, only 18 brook trout were found in July, and no brook trout were captured during an extensive effort of four electrofishing passes in October. All the brook trout captured during July 2003 were age two and older, confirming that no brook trout successfully recruited to the population during the past two to three years. Approximately 4.5 miles of Muskrat Creek is once again considered to have a healthy population of westslope cutthroat trout. No brook trout were captured in 2004 or 2005 indicating that brook trout have been eradicated upstream of the constructed barrier. The Muskrat Creek population is considered the most secure and strongest westslope cutthroat trout population in the Elkhorn Mountains. Sampling will continue in the future.

Riparian vegetation is in excellent condition along Muskrat Creek on BLM- and USFS-administered lands. The riparian vegetation provides exceptionally high-quality habitat for numerous wildlife species, including critical winter habitat for elk (*Cervus elaphus*).

### **FINAL ELIGIBILITY DETERMINATIONS**

Public comment will be accepted on eligibility recommendations in this report. The BLM will review comments and make adjustments if comments show eligibility criteria are not met. This could affect final decisions on eligible rivers and ultimately suitability decisions.

**SUITABILITY STUDY PHASE FOR THE BUTTE RMP REVISION**

The preliminary suitability evaluation is completed as the Draft RMP is prepared. Impacts that would occur from designation or nondesignation of the eligible river segments then would be analyzed in the EIS associated with the RMP. Public review and comment on preliminary suitability determinations included in the Draft RMP/EIS would be considered before the BLM makes final suitability determinations in the proposed RMP.

The WSR Act requires that interim management measures be developed to protect the free-flowing nature, outstandingly remarkable values, and recommended classification of suitable segments until Congressional action regarding designation is taken. Guidelines for interim management are included in Appendix C.

**SUITABILITY CRITERIA FOR ELIGIBLE SEGMENTS**

This section contains a discussion of the suitability factors related to each of the four eligible segments.

***Segment 1: Upper Big Hole River***

Length within Planning Area: 2.3 miles (Figure 5)

Tentative Classification: Recreational

Proposed Boundary: Approximately 0.25-mile from river bank on either side of the river.

1. Characteristics that do or do not make the river a worthy addition to the NWSRS:

The eligible segment contains recreational and fisheries outstandingly remarkable values, making the segment worthy of addition to the NWSRS. This segment of the Big Hole River provides important habitat for Montana arctic grayling.

A river ford used predominantly by hunters accessing the Beaverhead-Deerlodge National Forest is present within the segment. The feasibility of crossing varies depending on time of year and flows. Numerous vehicles have been mired while crossing, requiring a tow to extract them from the river. Consequently, the presence of this ford presents a safety hazard to many users. Use of this ford potentially impacts the Big Hole River water quality by increasing sediment, disturbing the bank, and leaking of oil and gas. Additionally, weeds are spread downstream as the river washes the undercarriage of vehicles.

There are no known water quality issues with this segment of the Big Hole River. Downstream of the eligible segment, from Divide Creek to the confluence with the Jefferson River, the Big Hole River has been identified as water quality impaired by the MDEQ 303d list (MDEQ 2005). This listing does not pertain to the eligible segment.

2. The status of landownership, minerals, use in the area, including the amount of private land involved and associated or incompatible uses:

Landownership within the 0.25-mile study corridor is predominantly Federal. The BLM manages 678 acres (89 percent). The BLM manages lands on both sides of the river for almost the entire segment (Figure 5). A private landowner controls the land along the western bank for approximately 0.25-mile at the northern end of the segment. There are two additional points where private land is within the 0.25-mile study corridor but not adjacent to the river along the western side.

The area has low oil and gas potential and very limited lode gold potential. There are no current or anticipated minerals uses in the area.

3. Reasonably foreseeable potential uses of the land and related waters that would be enhanced, foreclosed, or curtailed if the area were included in the NWSRS and values that would be foreclosed or diminished if the area is not protected as part of the NWSRS:

Grazing is permitted along this entire segment. Potential impacts from livestock grazing within the river corridor may include increased sedimentation resulting from bank erosion, transport of weed species, and increased nutrient input in the river. Designation of this segment could result in increased monitoring to ensure grazing activities are not adversely impacting the recreational and fisheries outstandingly remarkable values. If adverse impacts



are observed or anticipated, management of grazing in this segment would be more restricted on BLM land. Grazing occurring upstream on private land would not be subject to BLM's authority.

There is no active timber harvest occurring within the corridor. If the segment were included in the NWSRS, timber harvest within the study corridor would be prohibited.

Currently, recreational use within the study corridor consists of occasional camping and fishing. There are no developed facilities present. In addition, the ford described earlier provides hunting access to the Beaverhead-Deerlodge National Forest. In general, use is relatively light, the area is not well known outside the Butte area. Designation of this segment would bring national recognition to this segment and would likely attract visitors from a much greater area. Because of the small acreage of BLM land, increased use would be difficult to disperse and manage. This could cause significant negative impacts to the riparian habitat and stream and reduce the value of this segment as a National WSR. Consequently, camping and fishing access would either need to be developed and intensely managed or restricted as popularity increases.

4. Federal or State agency that will administer the river should it be added to the NWSRS.

If the river were added to the NWSRS, this segment would be administered by the BLM.

5. Federal, State, Tribal, local, public, or other interest in designating or not designating the river, including the extent to which the agency proposes that administration of the river, including the costs thereof, be shared by state, local, or other agencies and individuals:

No comments were received during the scoping period pertaining to designation of this segment. Other Federal agencies, the State, local, public and other interests will have the opportunity to review and comment on this report. Any interest in designating or not designating would be identified during this period, and this section would be revised accordingly.

6. Estimated cost to the United States of acquiring necessary lands, interests in lands, and administering the area should it be added to the NWSRS:

The 2.3-mile segment being studied is predominantly Federal land. The outstandingly remarkable values could be protected or enhanced without further acquisition of land. The BLM would consider the acquisition of fee title or conservation easements on the remaining 27 acres of private land within the 0.25-mile study corridor. Cost of acquisition would be approximately \$1,000 per acre.

7. A determination of the degree to which the State or its political subdivision(s) might participate in the preservation and administration of the river should it be proposed for inclusion in the NWSRS:

MFWP would continue to regulate floating outfitters. Regulations currently limit the days of the week outfitters are permitted to float certain sections of the Big Hole River. These regulations serve to maintain the recreational outstandingly remarkable values and reduce fishing pressure in certain areas.

The State controls a small parcel of land immediately upstream of the segment. Currently, State management of this parcel is compatible with the protection and enhancement of the recreational and fisheries outstandingly remarkable values within the eligible segment. Because it is immediately upstream of the eligible segment, activities on the State parcel could impact water quality within the eligible segment. Management would need to be coordinated with the State.

8. The Federal agency's ability or other mechanisms to protect and manage the identified river related values other than WSR designation:

The BLM currently has a Big Hole River Plan which describes management for all BLM parcels along the river, including the eligible segment. This plan provides management measures which would protect the outstandingly remarkable values in the eligible segment. Management measures from the Big Hole River Plan include the following:

- Visual qualities on BLM lands as seen from the river will be maintained to protect recreation quality and scenic viewing in accordance with VRM Classifications. Currently, most of the corridor is managed on VRM Class II. Under this Classification, changes in the basic elements due to management action should not be evident within the landscape as seen from the river.
- Do not issue grazing leases on BLM parcels within the Recreation Management Area (RMA) that are currently unleased or not allotted.
- No surface occupancy stipulations within ¼ mile of the river or in critical seen areas should be established for new oil and gas leases. In addition, leases will be subject to vehicle use restrictions.
- All road construction on BLM lands within the RMA must be compatible with the specific management objectives of this plan.
- Enact travel restrictions within developed and undeveloped recreation sites as necessary to protect resources
- All BLM lands within a one mile corridor from each side of the river shall be retained in public ownership
- Acquire additional land within the RMA corridor as feasible to provide for increased recreational opportunities and protect scenic resource.
- Do not issue commercial recreation use permits on the Big Hole River and limit permits for commercial camps and other uses within the RMA based on available space and public uses.

This segment is categorized as a VRM Class II area. The management objective for Class II areas is to retain the existing character of the landscape. The level of change to the characteristic landscape should be low. Management activities may be seen but should not attract the attention of the casual observer. Any changes must repeat the basic elements of form, line, color, and texture found in the predominant natural features of the characteristic landscape.

The BLM, within the site specific travel plan is assessing management alternatives for the use of the ford, which presents both water quality and safety concerns. Current management allows unrestricted crossings, which could adversely affect water quality and therefore fisheries values in the segment. Management changes such as prohibiting use of the ford or limiting use to game retrieval would only reduce the potential degradation of water quality and bank erosion. River flows within the upper reach are subject to seasonal moisture conditions and existing water rights. These conditions typically reduce flow in late summer to levels that impact fishery resources and prevent recreational floating.

9. An evaluation of the adequacy of local zoning and other land use controls in protecting the river's outstandingly remarkable values by preventing incompatible development:

The 27 acres (4 percent) of private land would be subject to local zoning controls. Local zoning would not be adequate to prevent new construction on the private land holdings within the WSR study corridor. No new development is allowed within 150 feet of the high water mark along the Big Hole River, and a permit is required for construction within 500 feet of the high water mark. It is possible, that construction would be permitted within the ¼ mile study corridor. All 27 acres are within the floodplain.

10. Support or opposition to designation:

As of the time of the preliminary suitability determination there has been no known support or opposition to designation of this segment. Any comments received pertaining to this segment during the review of the draft RMP would be incorporated into this report and considered when making a final suitability determination.

11. Historical or existing rights that could be adversely affected with designation:

There are no known historical or existing rights that would be affected with designation.

12. The consistency of designation with other agency plans, programs, or policies in meeting regional objectives:

Designation of this segment would be consistent with the Big Hole River Management Plan, and VRM II classification, provided designation does not result in a significant increase in use. However, national recognition of this segment could result in a significant increase in the number of people visiting this segment, which could be incompatible with these other plans, given the high riparian and natural value of the area.

13. The contribution to a river system, watershed, or basin integrity:

The eligible segment provides important habitat for salmonid fish species, including the Montana arctic grayling. Aquatic habitat in this segment helps support the fish populations throughout the river system.

***Segment 2: Missouri River (Hauser Dam to Upper Holter Lake)***

Length within Planning Area: 3.1 miles (Figure 6)

Tentative Classification: Scenic

Proposed Boundary: Approximately 0.25-mile on from river bank on either side of the river.

1. Characteristics that do or do not make the river a worthy addition to the NWSRS:

The outstandingly remarkable recreational, scenic and wildlife values associated with this segment make it a worthy addition to the NWSRS. These values are described in detail in the eligibility portion of this report.

Flows are controlled by releases from Canyon Ferry and Hauser Dams, located near the segment's upstream end. The amount of water released is governed by the Federal Energy Regulatory Commission (FERC) license for operations with the Pennsylvania Power and Light Corporation (PPL) Montana. The FERC license provides adequate flows for recreational and fisheries needs. These flows are sufficient to protect the recreational, fisheries, and scenic outstandingly remarkable values described for this segment. The dam is only visible at the very upstream end of this segment. The river immediately takes a bend through the canyon, obscuring view of the dam. Generally, good water quality supports high quality fisheries.

The segment has limited access and very little development along the shore. These relatively primitive conditions provide a setting similar to what Lewis and Clark would have experienced during their journey westward.

The USFS maintains a small access area within the 0.25-mile study corridor at the mouth of Beaver Creek. This facility provides fishing access and consists of a toilet, small parking lot, and fence. During the site visit in August 2005, this area was barely visible from the river. Vegetation obscured views of the fence and parking lot, but the toilet was visible for a brief period where there was a gap in vegetation. The area is likely more visible during the fall and winter when foliage is not as thick. This is a relatively minor intrusion on the scenic values of this segment. Overnight camping at this site is not permitted.

2. The status of landownership, minerals, use in the area, including the amount of private land involved and associated or incompatible uses:

Almost all lands (93 percent) within 0.25-mile of the river bank along this segment are Federally-managed. The USFS, Helena National Forest manages lands along the eastern bank for the entire length. The BLM manages all lands along the western bank for the entire segment length. There is a small private landholding located near the downstream end of the segment west of the river channel approximately 1/8-mile inland from the shore. This private landholding is not essential to the protection and enhancement of outstandingly remarkable values and could be excluded from the designated corridor. These lands are not at risk to development given the conditions of an existing easement on the property.

The USFS has found this segment to be eligible for inclusion in the NWSRS but has not completed a suitability study.

Land uses include some permitted grazing on BLM land along the western shoreline. The area is not fenced, and cattle have access to the river. It appears that grazing pressure along this segment is relatively light because rough terrain limits access to the river corridor.

This segment of the Missouri River has no significant mineral potential. The general area has moderate potential for oil and gas discoveries, but exploration is not likely to take place along the river. There are no current mineral resource uses along this segment.

3. Reasonably foreseeable potential uses of the land and related waters that would be enhanced, foreclosed, or curtailed if the area were included in the NWSRS and values that would be foreclosed or diminished if the area is not protected as part of the NWSRS:

Although unlikely, any increase in the height of Holter Dam would be prohibited if the river were designated. Such an increase would change the free-flowing nature of the river in this segment. Increasing the height of Holter Dam and the resulting increase in the size of Holter Lake and Upper Holter Lake is not likely to occur and may be physically infeasible because of the area's topography and the number of residences and other structures located along the shores of Holter Lake and Upper Holter Lake.

If the segment were to become part of the NWSRS, potential changes in Hauser Dam operations, outside the current FERC license, which could be considered the next time the FERC license is renewed would need to consider how such change could affect the outstandingly remarkable values. Significant reduction or increase in water releases from Hauser Dam could adversely affect the recreational, scenic, and wildlife values associated with this segment. As a Federal agency, FERC would need to ensure protection of these values when relicensing.

Grazing on the BLM land could be subject to increased restrictions if the segment were included in the NWSRS. The BLM would monitor the effects of cattle access to the river to ensure that grazing use is not adversely affecting the outstandingly remarkable values. If restrictions are necessary to protect river values, the BLM would work with the grazing allotment permittee to establish adequate restrictions.

Designation of this segment would prevent the sale of Federal lands within the corridor and would prevent extensive development along its shoreline. This segment is part of the Lewis and Clark National Historic Trail and is currently in a condition similar to how it was during their expedition. Not designating this segment could potentially result in changes to the landscape, altering the primitive nature of this segment.

4. Federal or State agency that will administer the river should it be added to the NWSRS.

Administration of this segment would ultimately be decided by Congress. All lands included in the river corridor are Federally-managed. Administration would likely be joint management between BLM and USFS, as each agency currently manages half of the corridor.

5. Federal, State, Tribal, local, public, or other interest in designating or not designating the river, including the extent to which the agency proposes that administration of the river, including the costs thereof, be shared by state, local, or other agencies and individuals:

The FERC and PPL Montana would have an interest in the designation of this segment as it pertains to water releases from Hauser Dam. Current operations, as identified in the FERC license, provide adequate flows to maintain the recreational, wildlife, and scenic outstandingly remarkable values associated with this segment. Although these flow requirements are not likely to change, relicensing efforts in the future would need to consider the protection of outstandingly remarkable values.

6. Estimated cost to the United States of acquiring necessary lands, interests in lands, and administering the area should it be added to the NWSRS:

All lands adjacent to the river segment are Federally-managed. Approximately 68 acres of land within 0.25-mile of the river are privately owned. This includes the private lands within 0.25-mile both upstream and downstream of the segment. The BLM would be capable of managing for the protection and enhancement of the outstandingly remarkable values without acquiring any lands. However, if BLM seeks acquisition of this small parcel of private land in order to have a continuous 0.25-mile corridor, land prices are approximately \$600 per acre.

The private parcel at the upstream end is owned by PPL Montana and is used for maintenance of the dam; acquisition is not likely.

Lands upstream would not be available or necessary to purchase as property is part of an administrative site owned by PPL Montana for operations at the dam. This utility company provides for river launching at this site which would compliment the management of the WSR designation. The parcel downstream would not be necessary to purchase to protect resource values as the private land is under an easement which prohibits residential development.

7. A determination of the degree to which the State or its political subdivision(s) might participate in the preservation and administration of the river should it be proposed for inclusion in the NWSRS:

MFWP would likely continue to manage for the recreational fisheries in this segment. This would be complimentary to the recreational outstandingly remarkable value that is linked to fishing opportunities.

8. The Federal agency's ability or other mechanisms to protect and manage the identified river related values other than WSR designation:

The BLM is able to manage its lands along the west bank of the segment for the protection of identified river-related values through its RMP. The eastern bank is managed by the USFS, Helena National Forest. River designation would provide for common goals and management objectives for the two Federal agencies.

9. An evaluation of the adequacy of local zoning and other land use controls in protecting the river's outstandingly remarkable values by preventing incompatible development:

This criterion is not applicable because all lands adjacent to this segment are Federally-managed.

10. Support or opposition to designation:

This is the suitability study report. During the scoping period, no support or opposition to designation of this segment was submitted. The public review of the draft RMP would provide an opportunity for other agencies and the public to review the preliminary findings and voice opposition or support.

11. Historical or existing rights that could be adversely affected with designation:

There are no known historic or existing rights that would be adversely affected with designation.

12. The consistency of designation with other agency plans, programs, or policies in meeting regional objectives:

Designation of this segment would be consistent with the objectives of the BLM's Butte RMP.

Designation of this segment would compliment the fisheries and recreational goals of the MFWP.

The USFS has not completed a suitability study for this segment. Designation would be consistent with the USFS eligibility determination, but successful management would depend on a similar suitability determination from USFS.

13. The contribution to a river system, watershed, or basin integrity:

Almost the entire flow in this segment is provided by releases from Hauser Dam. Only a small amount of water is added from the Beaver Creek tributary. This segment provides a very important contribution to the fisheries in the Missouri River watershed from Hauser Dam to Holter Dam downstream by providing important spawning habitat.

***Segment 3: Moose Creek***

Length within Planning Area: 4.0 miles (Figure 7)

Tentative Classification: Scenic

Proposed Boundary: Approximately 0.25-mile on from river bank on either side of the river.

1. Characteristics that do or do not make the river a worthy addition to the NWSRS:

Moose Creek contains outstandingly remarkable scenic and recreational values, as described in the eligibility section of this report, which make the river a worthy addition to the NWSRS.

Moose Creek from the headwaters to the mouth of the creek at the Big Hole River is identified as water quality impaired on the MDEQ 303d list (MDEQ 2005). The probable causes of impairment are dewatering and flow alteration. The probable sources of impairment are agriculture and crop-related sources. There is extensive agriculture upstream of the eligible segment located on private land. The BLM does not have authority to regulate activities on these lands and is subject to receive water from these areas into Moose Creek. The creek is categorized as 4C – Total Maximum Daily Loads (TMDLs) are not required; no pollutant-related use impairment identified. As a result, no plan for improving water quality in this segment is being developed.

2. The status of landownership, minerals, use in the area, including the amount of private land involved and associated or incompatible uses:

The entire eligible segment is located on BLM land within the Humbug Spires WSA. Upstream of the eligible segment, Moose Creek passes through private land. The private land is predominantly used for cattle grazing.

The area is currently used predominantly for recreational purposes such as hiking, camping, and providing access to climbing areas. These uses are compatible with the protection and enhancement of the segment's outstandingly remarkable values.

This segment has very low oil and gas potential. There are some known placer deposits along the creek and there is some limited potential for the discovery of lode gold deposits. There are no current mineral resource uses along this segment.

3. Reasonably foreseeable potential uses of the land and related waters that would be enhanced, foreclosed, or curtailed if the area were included in the NWSRS and values that would be foreclosed or diminished if the area is not protected as part of the NWSRS:

If the Humbug Spires WSA continues to be a WSA or becomes a designated Wilderness, reasonably foreseeable potential land uses would be compatible with the protection and enhancement of the segment's outstandingly remarkable values. If the WSA designation is removed by Congress without designating it as Wilderness, then the area could be opened to an array of potential land uses. If the segment were designated as part of the NWSRS, cattle grazing would continue to not occur along this segment.

Extraction of mineral in the area does not currently occur in accordance with the WSA designation. If the WSA designation were removed and the segment were designated in the NWSRS, mineral leasing and extraction would continue to be restricted.

4. Federal or State agency that will administer the river should it be added to the NWSRS.

The BLM, as the sole land manager, would administer the river should it be added to the NWSRS.

5. Federal, State, Tribal, local, public, or other interest in designating or not designating the river, including the extent to which the agency proposes that administration of the river, including the costs thereof, be shared by state, local, or other agencies and individuals:

The upstream landowner has not yet been contacted regarding this potential designation. It is expected that the landowner will review and comment on the suitability findings during the draft RMP review period. It is anticipated, given the necessity of the United States to acquire property or easements, that the landowner may be opposed to designation. Reasons for the necessity of acquisition are described in criteria 1 and 6.

6. Estimated cost to the United States for acquiring necessary lands, interests in lands, and administering the area should it be added to the NWSRS:

To adequately address water quality impairment resulting from upstream land uses, the United States would need to acquire the upstream lands either in fee title or through conservation easements. It is not anticipated that the upstream landowners would be willing sellers. Without acquisition, dewatering and flow alteration problems would continue to affect the eligible segment, in addition to water quality problems associated with cattle grazing. The cost of acquisition would be a minimum of \$500 per acre, requiring 690 acres to be acquired. One option would be within ¼ mile of the stream for the entire length upstream of BLM, currently private to the USFS boundary.

7. A determination of the degree to which the state or its political subdivision(s) might participate in the preservation and administration of the river should it be proposed for inclusion in the NWSRS:

The land within the study corridor is entirely BLM administered. It is not anticipated that the State or its political subdivision would be required to participate in the administration of the river should it be proposed for inclusion in the NWSRS.

8. The Federal agency's ability or other mechanisms to protect and manage the identified river related values other than WSR designation:

Protection and enhancement of the recreational and scenic outstandingly remarkable values are currently provided by the areas designation as a WSA. The management goals and objectives within the Humbug Spires WSA are compatible with management as an eligible segment. WSA designation is temporary. Congress has the ability to either designate the area as Wilderness under the Wilderness Act, or remove the WSA designation entirely. If WSA designation is removed, the area would be managed in accordance with the RMP. Removal of WSA designation, without making it a designated Wilderness area, could open the area to land uses such as timber harvest and mineral activity. Introduction of these land uses in the area could degrade the riparian corridor and result in impacts on the recreational and scenic outstandingly remarkable values that make the segment a worthy addition to the NWSRS.

BLM does not have the authority to regulate land uses upstream of the eligible segment. Water quality problems resulting from cattle grazing activities upstream would continue to occur.

9. An evaluation of the adequacy of local zoning and other land use controls in protecting the river's outstandingly remarkable values by preventing incompatible development:

Current local zoning and other land uses controls upstream of the eligible segment are not adequate to address the water quality issues.

10. Support or opposition to designation:

It is anticipated that the upstream landowner may be opposed to designation. Should the landowner provide comments either on the draft RMP or through direct communication with the BLM, this statement would be revised accordingly.

11. Historical or existing rights that could be adversely affected with designation:

There are no known historical or existing rights that could be adversely affected with designation.

12. The consistency of designation with other agency plans, programs, or policies in meeting regional objectives:

Designation would be consistent with current management prescriptions as a WSA and with the Butte RMP.

13. The contribution to a river system, watershed, or basin integrity:

Below the eligible segment, Moose Creek flows for several miles before entering the Big Hole River at Maiden Rock. Water in Moose Creek contributes to the water quality and quantity of the Big Hole River system.



***Segment 4: Muskrat Creek***

Length within Planning Area: 2.6 miles (Figure 8)

Tentative Classification: Scenic

Proposed Boundary: Approximately 0.25-mile on from river bank on either side of the river.

1. Characteristics that do or do not make the river a worthy addition to the NWSRS:

Muskrat Creek contains fisheries outstandingly remarkable values related to its population of genetically pure westslope cutthroat trout. MFWP, BLM, and USFS have actively removed eastern brook trout and have installed a barrier downstream to prevent non-westslope cutthroat trout from migrating into the segment.

The high-quality riparian corridor provides critical winter habitat for elk and serves as a migration corridor for elk, moose, and bear.

Water Quality

Muskrat Creek from its headwaters to the mouth at the Boulder River has been identified as water quality impaired on the MDEQ 303d list (MDEQ 2005). However, there is some discrepancy between the MDEQ assessment and current conditions within the segment. The 303d list identifies the creek as not supporting aquatic life or coldwater fisheries or as a drinking water supply. The probable causes listed are copper, lead, metals, and other habitat alterations. Probable sources are listed as agriculture (grazing-related sources), and resource extraction (abandoned mines). There is no agriculture occurring either within or upstream of the eligible segment. An abandoned mine (Iron Mine) is located upslope of the headwaters of Muskrat Creek near Elkhorn Peak. The data used for the 303d assessment includes the following note: Iron Mine sediment samples were not obtained from Muskrat Creek substrate, but were obtained in the headwaters uplands (MDEQ 2005). It appears that the metals contamination listed has not been observed within the creek sediments, but rather is found upslope of the headwaters. Muskrat Creek is scheduled for a TMDL to address water quality issues between 2008 and 2012.

Based on BLM field observations, the eligible segment does not have the water quality issues described above and is capable of supporting aquatic life and coldwater fisheries. Data has not been collected to determine if the segment would be a suitable drinking water supply. Current conditions in the segment include significant habitat for westslope cutthroat trout, as described in the eligibility section of this report. MFWP, BLM, and USFS are collaborating to conserve westslope cutthroat trout within this segment and upstream on the USFS land. Measurements of pH have been taken at several points within the eligible segment and the results (7.3 to 10) indicate that the area is not contaminated with heavy metals. In addition, BLM has begun conducting invertebrate surveys and has found healthy populations indicative of good water quality. Water quality impairment may be an issue downstream of the eligible segment where the creek enters agricultural areas.

Invasive species are present within the corridor, as they are virtually everywhere. Some small patches of yellow toadflax (*Linaria vulgaris*) were observed along the trail. In addition, patches of trees were observed to be infected with mountain pine beetle (*Dendroctonus ponderosae*).

2. The status of landownership, minerals, use in the area, including the amount of private land involved and associated or incompatible uses:

All land within 0.25-mile of the eligible segment is Federally-managed. BLM manages lands on both sides of the creek for the entire length (Figure 8). Lands both upstream and downstream of the eligible segment are managed by the USFS, Deerlodge National Forest.

This segment has very low oil and gas potential. There are some known placer occurrences along the creek and there is some limited potential for the discovery of lode gold deposits. There are no current mineral resource uses along this segment.

3. Reasonably foreseeable potential uses of the land and related waters that would be enhanced, foreclosed, or curtailed if the area were included in the NWSRS and values that would be foreclosed or diminished if the area is not protected as part of the NWSRS:

The area would continue to be available for mountain biking, hiking, horseback riding, and dispersed camping. Foreclosing or curtailing these activities as a result of designation is not anticipated.

Current management does not permit mining within the study corridor. Historic mining (Iron Mine) occurred up slope of the headwaters on USFS land.

4. Federal or State agency that will administer the river should it be added to the NWSRS.

The eligible segment would be administered by BLM should it be added to the NWSRS.

5. Federal, State, Tribal, local, public, or other interest in designating or not designating the river, including the extent to which the agency proposes that administration of the river, including the costs thereof, be shared by state, local, or other agencies and individuals:

The USFS manages land upstream and downstream of the eligible segment. The USFS did not find either the segments on its land eligible for inclusion in the NWSRS.

6. Estimated cost to the United States of acquiring necessary lands, interests in lands, and administering the area should it be added to the NWSRS:

Acquisition of land or interests in lands would not be necessary.

7. A determination of the degree to which the State or its political subdivision(s) might participate in the preservation and administration of the river should it be proposed for inclusion in the NWSRS:

MFWP is actively involved in a westslope cutthroat trout restoration program with the BLM and USFS in this segment. It is expected that their involvement in the protection and enhancement of the fisheries outstandingly remarkable values would continue.

8. The Federal agency's ability or other mechanisms to protect and manage the identified river related values other than WSR designation:

The surrounding USFS land is managed as the Elkhorn Wildlife Management Unit. BLM has a Memorandum of Understanding (MOU) with USFS to manage the lands surrounding the eligible segment for the benefit of recreation and wildlife, including fisheries. Management in accordance with the MOU is compatible with the protection and enhancement of the fisheries outstandingly remarkable value. No timber harvest or mining is permitted within the study corridor or within the Elkhorns WSA. Although current management is compatible with the protection of the outstandingly remarkable values, the time frame of these management goals are limited to the expiration of the MOU and subject to RMP amendments. Designation into the NWSRS would more permanently protect these values.

9. An evaluation of the adequacy of local zoning and other land use controls in protecting the river's outstandingly remarkable values by preventing incompatible development:

Local zoning and other land use controls do not pertain to this segment because it is entirely located on Federal lands.

10. Support or opposition to designation:

This is the suitability study report. During the scoping period, no support or opposition to designation of this segment was submitted. The public review of the draft RMP would provide an opportunity for other agencies and the public to review the preliminary findings and voice opposition or support.

11. Historical or existing rights that could be adversely affected with designation:

There are no known historical or existing rights that would be adversely affected by designation.

12. The consistency of designation with other agency plans, programs, or policies in meeting regional objectives:

Designation would be consistent with the Butte BLM RMP and the MOU with the USFS regarding management of this segment. A non-motorized hiking trail exists along the creek and is currently managed by the USFS under a BLM right-of-way.

## 13. The contribution to a river system, watershed, or basin integrity:

Muskrat Creek flows into the Boulder River.

**PRELIMINARY SUITABILITY DETERMINATION SUMMARY**

Two of the four eligible segments were determined suitable for inclusion in the NWSRS. Below is a brief summary of each of the four segments.

***Segment 1: Upper Big Hole River***

This segment contains outstandingly remarkable recreational and fisheries values. The recreational values include readily accessible camping and fishing opportunities in a section rated as a Class I, Blue Ribbon Fisheries. The fisheries values include a population of BLM sensitive Montana arctic grayling. The segment supports high quality grayling habitat on the Big Hole River and lacks the high-density populations of rainbow and brown trout, which compete with grayling. The segment meets the tentative classification as a Recreational river due to the presence of a road parallel to the segment. There are several physical and management challenges associated with this segment. BLM control of water quality within the segment is somewhat limited. Upstream of the segment is a small state-owned parcel (approximately 0.25-mile) followed by extensive private land holdings. Without acquisition of private lands, the Federal government would have very little control over the potential water quality impacts related from private land uses such as grazing. Within the segment, the ford and grazing create potential water quality impacts. The BLM could more restrictively manage these land uses to further protect water quality. The largest management challenge could arise as a result of inclusion of this segment in the NWSRS. Designation in the NWSRS would bring national recognition to this relatively small (2.3-mile) section of the Big Hole River. Increased use of this segment would alter the recreational experiences that are currently identified as outstandingly remarkable. The dispersed camping opportunities would not be feasible with increased use given the small amount of BLM land between the road and the river and the important riparian areas. Consequently, it is likely BLM would have to institute more restrictive management measures regarding recreation in the area or develop campsites and provide facilities. These changes would alter the values currently associated with the segment. As a result, this segment has been determined **not suitable** for designation as a Recreational river within the NWSRS.

***Segment 2: Missouri River (Hauser Dam to Upper Holter Lake)***

This segment contains outstandingly remarkable recreational, wildlife, and scenic values. The segment, which is primarily accessible by boat, is rated as a Class I, Blue Ribbon Fisheries, attracting national and international anglers. The river corridor provides significant habitat for bald eagle, osprey, golden eagle, peregrine falcon and bighorn sheep. Bald and golden eagle, osprey, and peregrine falcon depend upon the fisheries for food and the riparian corridor for nesting and perching habitats. Big horn sheep primarily use the river corridor for water and forage. Although flows are controlled by Canyon Ferry and to a lesser degree Hauser Dam, the FERC license requires adequate flows for fisheries habitat. These required flows maintain the free-flowing nature of the segment and provide flows suitable for the protection of the recreational, wildlife, and scenic outstandingly remarkable values. The segment meets classification criteria as Scenic because there is limited access to the segment, no parallel roads and development along the segment is limited to the Beaver Creek parking area and a pit toilet maintained by the USFS. Some dispersed camping occurs along the segment, but there are no developed sites. Due to the Beaver Creek parking area and pit toilet, both visible from the river, this segment is not designated as Wild because it does not meet the criteria that shoreline development be primitive. Designation of this segment as Scenic would result in minimal changes to existing management but would result in legislatively protecting the riparian corridor and provide a common goal for BLM and USFS coordination of the segment. As of this report, the USFS has found this segment to be eligible for inclusion in the NWSRS but has not completed a suitability study of the segment (Helena National Forest 1989). Because the BLM manages one side of the river and the USFS manages the other, successful management of this segment depends on cooperative management between the BLM and USFS. This segment has been determined **preliminarily suitable for designation**

as a **Scenic river** within the NWSRS. Because successful management of this segment depends on coordination with the USFS, the final BLM suitability determination will be deferred until the USFS completes a suitability study of this segment.

***Segment 3: Moose Creek (segment within Humbug Spires WSA)***

This segment contains outstandingly remarkable recreational and scenic values. The recreational values are related to the hiking, fishing, and primitive camping opportunities including providing a scenic hiking trail that provides access to the Humbug Spires for rock climbing. The scenic values are related to the variety of color patterns and habitats within the river corridor, which change from meandering through meadows, to wooded, to cascading boulders, returning to meadow at the upstream end. In addition, at several locations along the creek, generous views of the spires are available. The entire segment is located within the Humbug Spires WSA with access limited to the trailhead located at the downstream end of the segment. A hiking trail parallels the creek for the lower third; the upper two-thirds are accessible only by bushwhacking, as no trail exists. The primary characteristic making this segment not worthy of designation is water quality. The segment is listed as water quality impaired by the MDEQ 303d list, and there is no restoration plan in place or planned for development. The causes of water quality impairment are related to private land uses upstream of the eligible segment. Federal agencies, including BLM, do not have authority to regulate these land uses. In order, to remedy the water quality issues, the BLM would need to acquire these lands or an interest in the lands (through easement) along the river corridor. Such acquisition would be fairly expensive, and likely against the wishes of the landowner. Protection of the recreational and scenic outstandingly remarkable values within the BLM authority is currently provided by the WSA designation. However, the protections afforded by WSA designation are dependent upon the continued WSA designation or legislative action to formally designate the area as Wilderness under the Wilderness Act. Removal of WSA designation could result in the introduction of commodity based land uses, which could impact the recreational and scenic values of this segment. As a result of the water quality issues, this segment has been determined **not suitable** for inclusion in the NWSRS.

***Segment 4: Muskrat Creek***

This segment contains outstandingly remarkable fisheries values related to its population of westslope cutthroat trout. Muskrat Creek, through the efforts of BLM, MFWP, and USFS, is considered to have a healthy genetically pure westslope cutthroat trout population. The high-quality riparian habitat provides critical winter elk habitat and a migration corridor for elk, moose and bear. The only potential detracting characteristic of this segment is related to water quality. A trail parallels the segment for its entire length. The only development along this segment consists of a small wooden footbridge located approximately 1.5 miles upstream from the trailhead. Remnants of another small footbridge were observed near the upstream end of the segment. The MDEQ has listed Muskrat Creek including the eligible segment as water quality impaired and is developing a TMDL to restore water quality. However, observations within this segment show no evidence of water quality impairment. Further investigation is necessary for confirmation, but it appears that the segment may need to be removed from the 303d list. Designation of this segment would result in minimal changes from current management but would ensure protection of the fisheries values through legislative designation. This segment has been determined **suitable for designation as a Scenic river** within the NWSRS. If further examination determines that the segment has good water quality, and is subsequently removed from the MDEQ 303d list, the segment would be **suitable for designation as a Wild river** within the NWSRS. This suitability study has examined only the portion of Muskrat Creek on BLM land as a stand alone segment. The USFS manages portions of Muskrat Creek both upstream and downstream of this segment which may also be suitable for designation. If the USFS completes an eligibility and suitability determination, the total length of the segment worthy for designation within the NWSRS may increase.

## INTERIM MANAGEMENT

Interim protection for preliminarily suitable segments is described in Appendix C.

### *Missouri River*

Current BLM management of this segment is sufficient to protect the free-flowing nature and outstandingly remarkable values within BLM's authority that make this segment suitable for designation as a Scenic river in the NWSRS. Successful long-term management of this segment needs to be closely coordinated with the USFS, which manages the opposite shoreline.

### *Muskrat Creek*

Current BLM management of this segment is sufficient to protect the free-flowing nature and outstandingly remarkable fisheries values that make this segment suitable for designation within the NWSRS. Continued coordination with USFS and MFWP would be critical to maintain the genetic purity of westslope cutthroat trout in the segment. Although it appears that heavy metals from the abandoned Iron Mine are not reaching the creek, an assessment of potential impact should be conducted. It may be necessary to take additional protective measures to ensure that contamination does not occur.

Although the Upper Big Hole River and Missouri River segments were preliminarily found not suitable, if an alternative is chosen that includes these segments as being recommended suitable, protective management would apply.

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## GLOSSARY

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**ELIGIBLE RIVER SEGMENT.** A section of a river that qualifies for inclusion in the National Wild and Scenic River System through determination that it is free-flowing and with its adjacent land area possessing at least one river-related value considered to be outstandingly remarkable.

**PLANNING AREA.** The geographical area for which land use and resource management plans are developed and maintained.

**RESOURCE MANAGEMENT PLAN (RMP).** A land use plan that establishes land use allocations, multiple-use guidelines, and management objectives for a given planning area. The BLM has used the RMP planning system since about 1980.

**SUITABLE RIVER.** A river segment found, through administrative study by an appropriate agency, to meet the criteria for designation as a component of the National Wild and Scenic Rivers system, specified in Section 4(a) of the Wild and Scenic Rivers Act.

## **ELIGIBILITY CRITERIA**

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### ***INTRODUCTION***

For the purpose of classification, a river area may be divided into segments. For example, changes in river character, such as the presence of dams and reservoirs, significant changes in types or amounts of development, significant changes in physiographic character, tributaries, or features, and/or significant changes in land status, should be considered in identifying river segments for evaluation. Management strategies necessary to administer the entire river area should also be taken into account. As such, excessive segmentation should be avoided. Each segment, considered as a whole, needs to conform to either the Wild, Scenic, or Recreational classification. There are no specific requirements for segment length. Congress has designated a segment as short as four miles. A river segment is of sufficient length if a specific outstandingly remarkable value or values can be protected (a factor in the suitability determination, not eligibility determination), should the segment be designated. An entire stream could be one segment.

Each identified river segment in the RMP planning area must be evaluated to determine whether or not it is eligible for inclusion in the NWSRS. To be eligible, a river segment must be “free-flowing” and must possess at least one “outstandingly remarkable” value. Free-flowing means “existing or flowing in a natural condition without impoundment, diversion, straightening, rip-rapping, or other modification of the water.” Please note the following:

- A river below a dam or impoundment can still be eligible;
- A river need not be navigable by water craft in order to be eligible; and
- There are no specific requirements concerning the flow of an eligible river segment. Flows are sufficient if they sustain or complement the outstandingly remarkable values for which the segment would be designated. As such, intermittent and ephemeral streams can be eligible.

### ***OUTSTANDINGLY REMARKABLE VALUES***

The determination of whether a river area contains “outstandingly remarkable” values is a professional judgment and needs to be documented in the study report. In order to be considered as outstandingly remarkable, a river-related value must be a unique, rare, or exemplary feature that is significant at a comparative regional or national scale. While the spectrum of resources that may be considered is broad, all values should be directly river related. That is, they should have the following characteristics:

- Be located in the river or on its immediate shorelands (for the purposes of this study, the preliminary boundary is 0.25 mile on either side of the river);
- Contribute substantially to the functioning of the river ecosystem; or
- Owe their location or existence to the presence of the river.

The following are general guidelines for the outstandingly remarkable values for which river segments can be eligible. Only one such value is needed for eligibility.

### ***SCENIC***

The landscape elements of landform, vegetation, water, color, and related factors result in notable or exemplary visual features or attractions. When analyzing scenic values, additional factors, such as seasonal variations in vegetation, scale of cultural modifications, and the length of time negative intrusions are viewed, may be considered. Scenery and visual attractions may be highly diverse over most of the river or river segment.

### ***RECREATIONAL***

Recreational opportunities are or have the potential to be popular enough to attract visitors from throughout or beyond the region of comparison or are unique or rare within the region. Visitors are willing to travel long distances to use the river resources for recreational



purposes. River-related opportunities could include, but are not limited to, sightseeing, wildlife observation, camping, photography, hiking, fishing and boating.

- Interpretive opportunities may be exceptional and may attract or have the potential to attract visitors from outside the region of comparison.
- The river may provide or have the potential to provide settings for national or regional usage or competitive events.

#### **GEOLOGICAL**

The river, or the area within the river corridor, contains one or more examples of a geologic feature, process, or phenomenon that are unique or rare within the region of comparison. The features may be in an unusually active stage of development, represent a textbook example, or represent a unique or rare combination of geologic features (erosional, volcanic, glacial, or other geologic structures).

#### **FISH**

Fish values may be judged on the relative merits of either fish populations or habitat or a combination of the following river-related conditions:

- *Populations.* The river is nationally or regionally one of the top producers of resident, indigenous, or anadromous fish species. Of particular significance may be the presence of wild or unique stocks or populations of state- or US-listed or candidate threatened and endangered species.
- *Habitat.* The river provides exceptionally high quality habitat for fish species indigenous to the region. Of particular significance is habitat for state- or US-listed or candidate threatened and endangered species.

#### **WILDLIFE**

Wildlife values may be judged on the relative merits of either wildlife populations or habitat, or a combination of the following conditions:

- *Populations.* The river or area within the river corridor contains nationally or regionally important populations of resident or indigenous wildlife species dependent on the river environment. Of particular significance may be species considered to be unique or populations of state- or US-listed or candidate threatened and endangered species.
- *Habitat.* The river or area within the river corridor provides exceptionally high quality habitat for wildlife of national or regional significance or may provide unique habitat or a critical link in habitat conditions for state- or US-listed or candidate threatened and endangered species. Contiguous habitat conditions are such that the biological needs of the species are met.

#### **CULTURAL**

The river or area within the river corridor contains a site or sites where there is evidence of occupation or use by Native Americans. Sites must be rare or must have unusual characteristics or exceptional human-interest values. Sites may have national or regional importance for interpreting prehistory; may be rare; may represent an area where culture or a cultural period was first identified and described; may have been used concurrently by two or more cultural groups; or may have been used by cultural groups for rare or sacred purposes.

#### **HISTORIC**

The river or area within the river corridor contains a site or sites or feature or features associated with a significant event, an important person, or a cultural activity of the past that was rare or unusual in the region. A historic site or feature in most cases is 50 years old or older. Sites or features listed in or eligible for inclusion in the National Register of Historic Places may be of particular significance.

#### **OTHER SIMILAR VALUES**

While no specific evaluation guidelines have been developed for the other similar values category, additional values deemed relevant to the eligibility of the river segment should be considered in a manner consistent with the foregoing guidance, including, but not limited to, hydrologic, ecologic/biologic diversity, paleontologic, botanic, and scientific study opportunities.

## CLASSIFICATION CRITERIA FOR WILD, SCENIC, AND RECREATIONAL RIVER AREAS

**Table B-1**  
**Classification Criteria for Wild, Scenic, and Recreational River Areas**

Attribute	Wild	Scenic	Recreational
Water Resources Development (impoundments, diversions, etc.)	Free of impoundment	Free of impoundment	Some existing impoundment or diversion. The existence of low dams, diversions, riprap, or other modifications of the waterway is acceptable, provided the waterway remains generally natural and riverine in appearance.
Shoreline Development	Essentially primitive. Little or no evidence of human activity. The presence of a few inconspicuous structures, particularly those of historic or cultural value, is acceptable. A limited amount of domestic livestock grazing or hay production is acceptable. Little or no evidence of past timber harvest. No ongoing timber harvest.	Largely primitive and undeveloped. No substantial evidence of human activity. The presence of small communities or dispersed dwellings or farm structures is acceptable. The presence of grazing, hay production, or row crops is acceptable. Evidence of past or ongoing timber harvest is acceptable, provided the forest appears natural from the riverbank.	Some development. Substantial evidence of human activity. The presence of extensive residential development and a few commercial structures is acceptable. Lands may have been developed for the full range of agricultural and forestry uses. May show evidence of past and ongoing timber harvest.

**Table B-1**  
**Classification Criteria for Wild, Scenic, and Recreational River Areas** (*continued*)

Attribute	Wild	Scenic	Recreational
Accessibility	Generally inaccessible except by trail. No roads, railroads, or other provision for vehicular travel within the river area. A few existing roads leading to the boundary of the river area is acceptable.	Accessible in places by road. Roads may occasionally reach or bridge the river. The existence of short stretches of conspicuous or longer stretches of inconspicuous roads or railroads is acceptable.	Readily accessible by road or railroad. The existence of parallel roads or railroads on one or both banks, as well as bridge crossings and other river access points, including fords, is acceptable.
Water Quality	Meets or exceeds Federal criteria or Federally approved state standards for aesthetics, for propagation of fish and wildlife normally adapted to the habitat of the river, and for primary contact recreation (swimming), except where exceeded by natural conditions.	No criteria prescribed by the Wild and Scenic Rivers Act. The Federal Water Pollution Control Act Amendments of 1972 have made it a national goal that all waters of the United States be made fishable and swimmable. Therefore, rivers will not be precluded from scenic or recreational classification because of poor water quality at the time of their study, provided a water quality improvement plan exists or is being developed in compliance with applicable Federal and state laws.	

Source: Federal Register. National Wild and Scenic Rivers System; Final Revised Guidelines for Eligibility, Classification, and Management of River Areas. Section 1(3), Vol. 47, No. 173, page 39461. September 7, 1982.

# INTERIM PROTECTION FOR CANDIDATE WILD AND SCENIC RIVERS

**Table C-1**  
**Interim Protection for Candidate Wild and Scenic Rivers**

<b>Wild and Scenic Rivers Act, Section 5(d)(1)<sup>1</sup></b>		
<b>Issue/Action</b>	<b>Eligible<sup>2</sup></b>	<b>Suitable</b>
Study Boundary	Minimum of 0.25-mile from ordinary high-water mark.  Boundary may include adjacent areas needed to protect identified values.	Minimum of 0.25-mile from ordinary high-water mark.  Boundary may include adjacent areas needed to protect identified values.
Preliminary Classification	Section 2(b):  3 classes: Wild, scenic, recreational, defined by statute.  Criteria for classification described in Interagency Guidelines.  Manage at preliminary classification.	Section 2(b):  3 classes: Wild, scenic, recreational, defined by statute.  Criteria for classification described in Interagency Guidelines.  Manage at preliminary classification.
Study Report Review Procedures		Notice of study report/draft EA <sup>3</sup> published in Federal Register.  Comments/response from Federal, state, and local agencies and the public included in the study report/final EA <sup>4</sup> transmitted to the President and Congress.

**Table C-1**  
**Interim Protection for Candidate Wild and Scenic Rivers** *(continued)*

<b>Wild and Scenic Rivers Act, Section 5(d)(1)<sup>1</sup></b>		
<b>Issue/Action</b>	<b>Eligible<sup>2</sup></b>	<b>Suitable</b>
Private Land	Affect private land uses through voluntary partnership with state/local governments and landowners.	Affect private land uses through voluntary partnership with state/local governments and landowners.
*Administration		
*Acquisition	No regulatory authority.	No regulatory authority.
	No ability to acquire interest in land under the Act's authority prior to designation.	No ability to acquire interest in land under the act's authority prior to designation.
		Typically an evaluation of the adequacy of local zoning and land use controls is a component of suitability determination <sup>5</sup> .
Water Resources Project	River's free-flowing condition protected to the extent of other agency authorities; not protected under the act.	River's free-flowing condition protected to the extent of other agency authorities; not protected under the act.
Land Disposition	Agency discretion to retain lands within river corridor in Federal ownership.	Agency discretion to retain lands within river corridor in Federal ownership.
Mining and Mineral Leasing	Protect free flow, water quality, and outstandingly remarkable values through other agency authorities.	Protect free flow, water quality, and outstandingly remarkable values through other agency authorities.
Actions of Other Agencies	Affect actions of other agencies through voluntary partnership.	Affect actions of other agencies through voluntary partnership.
Protect Outstandingly Remarkable Values	No regulatory authority conferred by the act; agency protects through other authorities.	No regulatory authority conferred by the act; agency protects through other authorities.
	Section 11(b) 1: Limited financial or other assistance to encourage participation in the acquisition, protection, and management of river resources <sup>6</sup> .	Section 11(b) 1: Limited financial or other assistance to encourage participation in the acquisition, protection, and management of river resources <sup>6</sup> .

<sup>1</sup> Agency-identified study rivers as directed by Section 5(d)(1) of the act.

<sup>2</sup> A number of sources are available for identifying rivers under Section 5(d)(1). Under a Presidential Directive issued in 1979, each Federal agency, as part of its normal planning and environmental review processes, is required to avoid or mitigate adverse effects on rivers in the National Rivers Inventory.

<sup>3</sup> Draft environmental assessment

<sup>4</sup> Final environmental assessment

<sup>5</sup> For an agency-identified study river that includes private lands, there is often the need to evaluate existing state and local land use controls and, if necessary, to assess the willingness of state and local government to protect river values.

<sup>6</sup> Section 11(b)1 authorizes the Secretary of the Interior and Secretary of Agriculture or the head of any other Federal agency to provide for "limited financial or other assistance to encourage participation in the acquisition, protection, and management of river resources." This authority "applies within or outside a Federally administered area and applies to rivers which are components of the National Wild and Scenic Rivers System and to other rivers." The recipients of Federal assistance include states or their political subdivisions, landowners, private organizations, or individuals. Some examples of assistance under this section include, but are not limited to, riparian restoration, riparian fencing to protect water quality and riparian vegetation, of vegetative screening to enhance scenery/recreation experience.

## **RIVER SEGMENTS FROM INITIAL IDENTIFICATION EFFORTS**

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Table D-1 lists the Planning Area river and stream segments considered during initial identification efforts for the Wild and Scenic Rivers study process.

**Table D-1**  
**River Segments from Initial Identification Efforts**

River Segment	Total Segment Length (miles)	Length on BLM-administered Lands (miles)	Free Flowing	Outstandingly Remarkable Values								Determination	
				Scenic	Recreation	Geological	Fish	Wildlife	Historic	Cultural	Other	Not Eligible	Eligible
<b>Big Hole River</b>	<b>15.20</b>	<b>6.96</b>										X	
segment 1		0.39										X	
segment 2		0.34										X	
segment 3		0.79										X	
segment 4		0.16										X	
segment 5		0.95										X	
segment 6		0.40										X	
segment 7		0.28										X	
segment 8		2.30	Yes		X		X						X
segment 9		0.73										X	
segment 10		0.26										X	
segment 11		0.15										X	
segment 12		0.21										X	
<b>Big Pipestone Creek</b>	<b>5.57</b>	<b>3.26</b>										X	
<b>Blackfoot River</b>	<b>2.22</b>	<b>1.90</b>										X	
segment 1		1.62										X	
segment 2		0.28										X	
<b>Boulder River</b>	<b>8.74</b>	<b>3.76</b>										X	
segment 1		0.03										X	
segment 2		0.06										X	
segment 3		0.17										X	
segment 4		0.27										X	
segment 5		1.48										X	

**Table D-1**  
**River Segments from Initial Identification Efforts** *(continued)*

River Segment	Total Segment Length (miles)	Length on BLM-administered Lands (miles)	Free Flowing	Outstandingly Remarkable Values								Determination	
				Scenic	Recreation	Geological	Fish	Wildlife	Historic	Cultural	Other	Not Eligible	Eligible
segment 6		0.13										X	
segment 7		0.91										X	
segment 8		0.71										X	
<b>Cabin Creek</b>	<b>2.51</b>	<b>2.51</b>										X	
<b>Camp Creek</b>	<b>10.74</b>	<b>5.34</b>										X	
segment 1		1.58										X	
segment 2		3.76										X	
<b>Cataract Creek</b>	<b>1.88</b>	<b>0.37</b>										X	
segment 1		0.06										X	
segment 2		0.25										X	
segment 3		0.06										X	
<b>Charcoal Creek</b>	<b>1.77</b>	<b>1.31</b>										X	
segment 1		1.13										X	
segment 2		0.18										X	
<b>Chicken Gulch</b>	<b>2.09</b>	<b>2.09</b>										X	
<b>Clark Gulch</b>	<b>2.20</b>	<b>1.07</b>										X	
<b>Cline Gulch</b>	<b>1.38</b>	<b>1.34</b>										X	
<b>Confederate Gulch</b>	<b>5.43</b>	<b>3.28</b>										X	
segment 1		0.85										X	
segment 2		0.36										X	
segment 3		0.16										X	
segment 4		1.06										X	
segment 5		0.11										X	



**Table D-1**  
**River Segments from Initial Identification Efforts** *(continued)*

[illegible]

**Table D-1**  
**River Segments from Initial Identification Efforts** *(continued)*

River Segment	Total Segment Length (miles)	Length on BLM-administered Lands (miles)	Free Flowing	Outstandingly Remarkable Values								Determination	
				Scenic	Recreation	Geological	Fish	Wildlife	Historic	Cultural	Other	Not Eligible	Eligible
<b>High Ore Creek</b>	<b>5.22</b>	<b>2.19</b>										X	
segment 1		0.15										X	
segment 2		1.01										X	
segment 3		0.15										X	
segment 4		0.07										X	
segment 5		0.07										X	
segment 6		0.56										X	
segment 7		0.19										X	
<b>Homestake Creek</b>	<b>2.21</b>	<b>2.21</b>										X	
<b>Horse Gulch</b>	<b>2.43</b>	<b>2.43</b>										X	
<b>Indian Creek</b>	<b>9.30</b>	<b>6.73</b>										X	
segment 1		1.10										X	
segment 2		0.85										X	
segment 3		3.67										X	
segment 4		1.10										X	
segment 5*		9.10							X			X	
<b>Jackson Creek</b>	<b>2.98</b>	<b>0.50</b>										X	
segment 1		0.39										X	
segment 2		0.11										X	
<b>Jimmie New Creek</b>	<b>1.87</b>	<b>1.87</b>										X	
<b>Johnny Gulch</b>	<b>8.14</b>	<b>5.18</b>										X	
segment 1		0.29										X	
segment 2		0.31										X	

**Table D-1**  
**River Segments from Initial Identification Efforts** *(continued)*

[illegible]

**Table D-1**  
**River Segments from Initial Identification Efforts** *(continued)*

River Segment	Total Segment Length (miles)	Length on BLM-administered Lands (miles)	Free Flowing	Outstandingly Remarkable Values								Determination	
				Scenic	Recreation	Geological	Fish	Wildlife	Historic	Cultural	Other	Not Eligible	Eligible
<b>Lost Horse Creek</b>	<b>5.40</b>	<b>0.85</b>										X	
segment 1		0.02										X	
segment 2		0.15										X	
segment 3		0.27										X	
segment 4		0.24										X	
segment 5		0.17										X	
<b>Lump Gulch</b>	<b>7.91</b>	<b>2.56</b>										X	
segment 1		1.27										X	
segment 2		1.03										X	
segment 3		0.26										X	
<b>Missouri River</b>	<b>43.79</b>	<b>29.21</b>										X	
segment 1		3.05	Y		X								X
segment 2		5.47										X	
segment 3		2.77										X	
segment 4		14.21										X	
segment 5		1.66										X	
segment 6		0.13										X	
segment 7		0.14										X	
segment 8		0.27										X	
segment 9		0.48										X	
segment 10		0.76										X	
segment 11		0.27										X	

**Table D-1**  
**River Segments from Initial Identification Efforts** *(continued)*

[illegible]

**Table D-1**  
**River Segments from Initial Identification Efforts** *(continued)*

River Segment	Total Segment Length (miles)	Length on BLM-administered Lands (miles)	Free Flowing	Outstandingly Remarkable Values								Determination	
				Scenic	Recreation	Geological	Fish	Wildlife	Historic	Cultural	Other	Not Eligible	Eligible
<b>Sevenmile Creek</b>	<b>1.35</b>	<b>1.28</b>										X	
<b>Sheep Creek</b>	<b>3.74</b>	<b>3.09</b>										X	
<b>Silver Creek</b>	<b>5.25</b>	<b>2.81</b>										X	
segment 1		0.12										X	
segment 2		0.28										X	
segment 3		0.37										X	
segment 4		0.38										X	
segment 5		0.25										X	
segment 6		0.88										X	
segment 7	0.53	0.53										X	
<b>Skelly Gulch</b>	<b>0.91</b>	<b>0.79</b>										X	
<b>Soap Creek</b>	<b>8.28</b>	<b>5.02</b>										X	
segment 1		0.93										X	
segment 2		0.71										X	
segment 3		0.91										X	
segment 4		0.31										X	
segment 5		2.15										X	
<b>Teddy Creek</b>	<b>1.78</b>	<b>1.56</b>										X	
<b>Towhead Gulch</b>	<b>2.95</b>	<b>1.64</b>										X	
segment 1		0.71										X	
segment 2		0.93										X	
<b>Virginia Creek</b>	<b>3.44</b>	<b>1.79</b>										X	

Note:

\* = Indian Creek Segment 5 was initially found to be eligible. Further evaluation during the suitability phase determined the segment not to be free flowing. The extensive historic and current mining activities have resulted in a channel which does not meet the “natural condition” requirements of free flowing. Numerous placer piles along the segment have resulted in severe modification of the natural channel.

**Table D-1**  
**River Segments from Initial Identification Efforts** *(continued)*

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